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**FLAMMABILITY OF MATERIALS IN GASEOUS
OXYGEN ENVIRONMENTS**

C. F. Key, et al

**George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama**

September 1973

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Astronautics Laboratory

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TECHNICAL MEMORANDUM X-64783

FLAMMABILITY OF MATERIALS
IN GASEOUS OXYGEN ENVIRONMENTS

BY

C.F. KEY, J.G. AUSTIN, J.W. BRANSFORD

SUMMARY

The results of test evaluations of a wide variety of materials and configuration test articles to determine their flammability characteristics in gaseous oxygen environments are reported.

The test methods and criteria are described in MSFC-SPEC-101B, "Flammability, Odor, and Offgassing Requirements and Test Procedures For Materials in Environments Which Support Combustion." The test requirements of MSFC-SPEC-101B are the same as those in NHB 8060.1, "Flammability, Odor, and Offgassing Requirements and Test Procedures For Materials in Environments that Support Combustion."

INTRODUCTION

This investigation was undertaken to support the Skylab Program and its purpose was to determine the flammability characteristics of engineering materials in the Skylab habitation environment.

Naturally, the factors to be considered in final selection of any material are dependent upon the service intended. Selection and evaluation of these factors will vary widely. Thus, it is not feasible to attempt to provide in this report all of the information necessary to assess fully the adequacy of a material for specific applications. However, unless extenuating circumstances exist, this Center will not approve the use of any materials rated as unsatisfactory unless it can be shown that the material in its use configuration/application meets the flammability requirements of MSFC-SPEC-101B or NHB 8060.1 Since the flammability characteristics of materials are usually thickness dependent, this Center will normally approve only materials rated as satisfactory or batch test in their use environments in the thickness evaluated or in thicker sections. Every effort should be made to use only non-combustible materials.

DISCUSSION

PLASTICS, ELASTOMERS, ADHESIVES AND CASTINGS - TABLE I

A wide variety of sheet type materials were evaluated for flammability in enriched oxygen. The most consistent satisfactory sheet type materials are highly fluorinated materials and the polyimide plastics.

The variations in flammability characteristics of most organic type materials with respect to ignitors, oxygen concentration, composition thickness and sample orientation were also studies during this program.

Ignitor Effects - 3 ignitor systems were used to evaluate the flammability of materials. The first ignitor consisted of an energized nichrome wire. The second ignitor considered was a nichrome wire with a paper stick inserted in the coils. The third ignitor consisted of a nichrome wire coil with a silicone rod inserted in the coil.

The severity of these various ignition sources was evaluated in a test program by subjecting thirty materials of varying thicknesses to each of these ignitors in a 6.2 psia 100% oxygen environment. The materials were all evaluated as sheet materials held in vertical position and ignitors placed at the bottom. The results of this study are evaluated in Figure 1.

It is evident that the silicone ignitor is more severe than either the paper stick or nichrome ignitors. As expected, the paper stick ignitor is more severe than the nichrome ignitor and less severe than the silicone ignitor. It is also evident from this study that an increase in sample length is required for evaluation and comparison of the flammability characteristics of materials.

Flame Propagation Rates in Various Atmospheres - Figure 2 illustrates the increased flammability hazard as a function of pressure in 100% O₂. It is readily seen that flame propagation rates increase drastically as pressure is increased.

Effect of Chemical Composition

The flammability characteristics of organic materials are functions of chemical compositions and thicknesses. Figures 5 and 6 are comparisons of this effect. Polyethylene is highly flammable, but as fluorine is introduced into the parent compound, the flammability is reduced (top ignition).

It is well-known that processing additives and fillers affect LOX compatibility of materials; therefore, it is not surprising that these additives and fillers affect flammability of materials. Shown in Figure 6 are the variations of flame propagation rates of various polyurethanes with different cure agents and additives.

Effect of Thickness

The data tabulated in Figure 3 indicate there are basically two types of materials. One type (cellulose, butyrate, polycarbonates, etc.) is flammable (100 percent oxygen at 6 psia) in all thicknesses; whereas, for the other type of material (highly fluorinated and polyimide laminate), a thickness has been detected at which, for all practical purposes, is nonflammable.

Sample Orientation

Tabulated in Figure 4 are the results of sample orientation on flame propagation rates. It is readily seen that the burning characteristics of materials are affected by the sample orientation.

ELECTRICAL WIRE & POTTING COMPOUNDS - TABLE II

A wide variety of wire harnesses, connectors, and potting compounds were evaluated in 100% O₂ @ 6 2 psi during this program. The most satisfactory solution to the flammability problem of electrical wire harnesses and cables is to encase them in metal conduit or use nonflammable cable composites. Several methods or configurations are used in Skylab to accomplish this. Listed in Table II are configuration composites of electrical cable that meets the flammability requirements.

The most satisfactory method of alleviating the flammability hazard in enriched oxygen of potting compounds is to use double Beta bags as covers over the potting material. Single Beta bags do not afford protection from both outside and inside ignition sources.

CONFIGURATION TESTS - TABLE III

Listed in Table III are configuration tests conducted during this program. It was impractical to specify all required information of these configuration tests; therefore, the Usage Agreement, Test Request, or P0327, specified for each item should be requested of further information is required. Many tests of panels and made-up boards had the potting material as an important integral unit of component integrity. The third type (Table III) consists of data on configuration. One important group of these assemblages are electrical harnesses. A typical harness configuration would consist of several Teflon insulated wires (single conductors) 16-20 gauge, shielded, and connected and potted via appropriate feed-throughs, thence the entire assemblage encased within fiberglass sleeving. Finally, the completed assemblage is contained inside a convoluted tubing of Teflon, or approved equal, which serves both as protective envelope and flexible container. Complete identification of configuration samples can be obtained from Materials Division.

The principle ignitor mode for electrical assemblages is the power overload, per Test No. 4 and Test No. 5. Assemblages requiring external ignition sources are ignited in the same manner as the sheet materials described in MSFC Specification 101-B.

Design of Electronic Black Boxes

Extensive test evaluation of electronic black boxes for flammability hazards was conducted by both MSFC and MSC. This test evaluation was necessitated by the fact that most materials (conformal coatings, printed circuit boards, potting compounds, etc.), are highly flammable in enriched oxygen environments. There are a number of "do's" and "don'ts" that should greatly reduce the number of configuration tests required for flammability. They are as follows:

1. Box should be constructed of metal 0.080" or thicker.
2. Box should be designed with compartments such that no propagation paths exist.
3. Cover should be flange type with screws spaced 1 1/2" apart maximum.
4. Vents or lightening holes in boxes should be restricted to 1/4 inch dia. maximum and 8 in number.
5. Only flame resistant printed circuit board material should be used.

6. The test reports listed in this report and those generated by W.S.T.F. should be used in conjunction with design to insure proper construction for flammability criteria.
7. Highly flammable materials such as polyurethane foams and nylon should be kept to a minimum.
8. Design should take into consideration void volume vs flammables used to insure no explosive potential exists.

CONCLUSIONS

The data in this report are primarily the results of test evaluation conducted in enriched oxygen environments. The extrapolation of these data for use in air environments at 14.7 psia is permissible with the following guidelines.

1. Any material or material application rated satisfactory or batch tested in enriched oxygen, would be satisfactory for use in air at 14.7 psi in the same thickness or in thicker sections.
2. Thinner sections of the materials should be evaluated to insure they are satisfactory.
3. Many of the materials listed unsatisfactory in this report may be satisfactory for use in air at 14.7 psia.

As stated earlier, the data listed in Table I through III are specifically oriented in support of the Skylab Program which utilizes an enriched oxygen environment (70% O₂ - 30% N₂ @ 6 psia). The new generation of Shuttle payloads will have as their environment, air at 14.7 psia. Obviously many materials and electronic modules will meet the flammability criteria in air at 14.7 psia. Materials in the thicknesses intended for use or thinner which meet the FAA or Underwriters Laboratories requirements should propose no problems in air at 14.7 psia from a flammability standpoint. However, these materials should be evaluated for toxicity and odor.

The information generated from this program should greatly curtail the test evaluations of black boxes (electronics modules) and provide the same safety assurance as in Skylab at a greatly reduced cost.

MATERIAL	THICKNESS (INCH)	RESULTS		
		NICHROME WIRE	SILICONE	IGNITER
				PAPER STICK
Fluorogreen E-600	0.012	NI	BC	-
Fluorogreen E-600	0.070	NI	SE (1/2" to 1")	SE (1/2")
Refset 3489	0.008	NI	SE (1-1/2" to 3")	SE (1/2" to 1")
Dodge M385-10	0.010	NI	BC	SE (4")
Armalon 95049	0.008	NI	SE (3")	SE (2-1/2")
Dodge Fibers E-650	0.060	NI	SE (1/2")	SE (1/2" to 1/4")
L-3217-1	0.080	NI	BC (3-1/2")	BC
Teflon Coated Aluminum Foil	0.003	NI	SE (1/2")	SE (1/2")
L-3203-6 Fluorel Elastomer	0.032	NI	BC	BC
L-3203-6 Fluorel Elastomer	0.125	NI	SE (1/2")	NI
L-3203-6 Fluorel Elastomer	0.068	NI	SE (1/2" to 3/4")	SE (1/8" to 1/4")
Mosite 1059	0.080	NI	BC	BC
L-3217	0.072	NI	BC	BC
Pyralin 1037 (Polyimide Glass Cloth)	0.037	NI	SE (1/2")	SE (1/2")
Pyraline 1037 " "	0.057	NI	SE (1/2")	SE (1/4")
20247-3	0.010	NI	SE (1/4")	NI
Micatex Beige	0.003	NI	BC	BC
Micatex Blue	0.003	NI (1")	SE (3")	SE (1-1/2")
Teflon TFE	0.312	SE (1")	NI	NI
Teflon FEP	0.250	SE (1/2")	SE (1/4")	SE (1/4")
Teflon TFE	0.250	SE (3")	NI	NI
Duroid 5600 (Ceramic Filled Teflon)	0.016	NI	BC (5-3/4")	SE 3-3/4")
Viton 238-26-1	0.075	NI	BC	BC
Viton 238-12-1	0.075	NI	BC	BC
Mosite 1077	0.075	NI	SE (1-1/2")	SE (1" to 2")
Paper 1142-F	0.002	SE (1/2" to 2")	BC (3")	SE (2")
Refset L-3236, Style 3764-1	0.090	NI	SE (3")	SE (1/4")
Refset L-3236, Style 3764-0	0.070	NI	BC	BC (1")
Refset L-3236, Style 3764-2	0.058	NI	BC	BC
Refset L-3236, Style 3766-3	0.020	NI	BC	BC

NI = No Ignition

SE = Self-Extinguishing

BC = Burned Completely

Figure 1. Igniter evaluation program
(Bottom ignition, 6.2 psia, 100 percent O₂)

		TOP IGNITION		
	AIR	5 PSIA	10 PSIA	13 PSIA
ADIPRENE L-167	SE	19 in/min	26 in/min	31 in/min
BUTYL RUBBER	SE	3.2	6.0	8.2
HYPALON	SE	2.2	3.1	3.6
NARMCO 7343	SE	12.4	21.3	26.0
NATURAL RUBBER	SE	4.1	5.3	6.2
POLYACRYLATE	SE	3.3	6.3	7.2
POLYURETHANE FOAM	SE	504	664	1110
PR-1527	SE	18	20	32

Figure 2. Propagation rate vs. pressure in 100 percent O₂.

TWO CLASSES OF MATERIALS (6.2 PSIA 100% O₂)

FLAMMABLE IN ALL THICKNESSES BUT FLAME PROPAGATION RATES INVERSELY
PROPORTIONAL TO THICKNESS.

(1) CELLULOSE BUTYRATE (GENERALLY NON-HALOGENATED)

5 MILS	93 INCH/MINUTE
10 MILS	60 INCH/MINUTE
50 MILS	35 INCH/MINUTE
80 MILS	24 INCH/MINUTE
250 MILS	10 INCH/MINUTE

(2) NON-FLAMMABLE IN CERTAIN THICKNESSES (GENERALLY HIGHLY HALOGENATED)

TEFLON TFE	312 MILS
TEFLON FEP	250 MILS
REFSET-L3236	90 MILS
TEFLON COATED FIBERGLASS	10 MILS
L3203-6	60 MILS
KEL-F	250 MILS
POLYIMIDE LAMINATES	40 MILS

1. * Top ignition,
2. Bottom ignition

Figure 3. Thickness effects.

SAMPLE THICKNESS 0.060 INCHES

FLAME PROPAGATION RATE - INCH/MINUTE 100% O₂ 05.2 PSIA

ABS RESIN	SILICONE	ACRYLIC
4.8	8.2	19.5

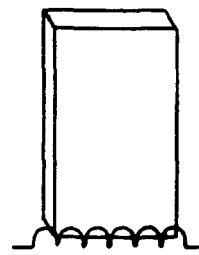
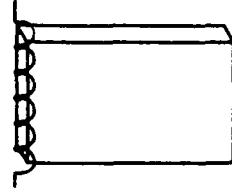
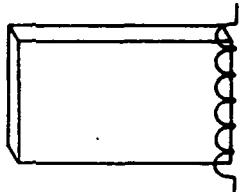


Figure 4. Sample orientation.

<u>MATERIAL</u>	<u>COMPOSITION</u>	<u>FLAME PROPOGATION RATE</u>
POLYETHYLENE	$-(\text{CH}_2 - \text{CH}_2)_N-$	18 INCH/MINUTE
POLYVINYL FLUORIDE	$-(\text{CH}_2 - \text{CFH})_N-$	16 INCH/MINUTE
POLYVINYLDENE FLUORIDE	$-(\text{CF}_2 - \text{CH}_2)_N-$	3.0 INCH/MINUTE
CHLOROTRIFLUOROETHYLENE	$-(\text{CF}_2 - \text{CFCI})_N-$	SE
TETRAFLUOROETHYLENE	$-(\text{CF}_2 - \text{CF}_2)_N-$	NI
FLUOROETHYLENE PROPYLENE	$-(\text{CF}_2 - \text{CF}_2 - \text{CF}_2 - \text{CF})_N-$ CF_2	NI

100% O₂ - 6 psia

Figure 5. Chemical composition (Top ignition - five mils thick).

<u>MATERIAL</u>		<u>FLAME PROPAGATION RATE</u>
FOAM (0.500 in)	-	405 INCH/MINUTE
CPR 20-3 (0.500 in)	-	372 INCH/MINUTE
URALANE 577-1	-	36 INCH/MINUTE
PR-1538 (0.188 in)	-	18.6 INCH/MINUTE
NARMCO 7343 (0.188 in)	-	12.4 INCH/MINUTE
DYNATHERM D-65 (0.188 in)	-	11.4 INCH/MINUTE

TOP IGNITION - (6 PSIA)

Figure 6. Polyurethanes - flame propagation rates in 100 percent oxygen.

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute*		Material Rating**	
						% petn	% petn	Top Ignition	Bottom Ignition	Type I	Group I
Abibond 163-J on 1 Mil Foil	Abletek Adhesive Company	1798	Structural Conductive Adhesive	0.012	101A	100	6.2		BC - 0.014	U	U
Abibor Polyplastic	Polyplastic United, Inc.	1244	Polyplastic	0.130	101A	100	6.2		BC	U	U
Acetal Resin, Delrin AF w/Teflon Fiber		2025	Photoplate Holder	0.080	101A	100	6.2		BC	U	U
Aclar Type 34C	Allied Chemical Corporation	-		0.006	101A	100	6.2	SE	BC - 16.06	U	U
Adprene L-167	E. I. du Pont de Nemours & Company	-	Polyurethane	0.168	101A	100	6.2	19.4	-	U	U
Aerfilm 15-619R	John Schenck, Inc.	1247		0.015	101A	100	6.2		BC - 0.38	U	U
Adhesive Type 64CP on 1 Mil Foil	Transonic, Inc.	1798		0.004	101A	100	6.2		NF	8	8
Albi Fire Resistant Paint No. 144	Albi Manufacturing Company	1068	Applied to 1-mil aluminum foil	0.003	101A	100	6.2		BC - 180.0	U	U
Albi Fire Resistant Paint No. 107A	Albi Manufacturing Company	1068	Applied to 1-mil aluminum foil	0.003	101A	100	6.2		BC - 180.0	U	U
Albi-Clad Magic Spray on Flammeproofing	Albi Manufacturing Company	1644	Fire Proofing Material	0.063	101A	100	6.2		BC	U	U
Aluminum Adhesive Tape Y6040	Minnesota Mining & Manufacturing Company	R26		0.006	101A	100	6.2	97.2	-	U	U
Aluminum Alloy 2014-T8		1588	Aluminum Alloy	0.032	101B	100	6.2		NF	8	8

* - BC = Burned Completely; NF = No Ignition; SE = Self-Extinguishing

** U = Unsatisfactory; S = Satisfactory; BT = Batch Test

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Material's Rating	Type I	Group I
									Top Ignition	Bottom Ignition
Aluminum Honeycomb Panel	U. S. Plywood Corporation	1241		0.376	101A	100	6.2	NI	8	8
Aluminum Honeycomb 1/4" Faced one side w/Anodized aluminum and one side w/vinyl clad aluminum (Beige)	U. S. Plywood Corporation	1242	Vinyl	0.313	101A	100	6.2	BC Vinyl Side	U	U
Aluminum Honeycomb 1/4" Faced w/wood grained vinyl clad - Aluminum on other side	U. S. Plywood Corporation	1243	Vinyl	0.313	101A	100	6.2	BC Vinyl Side	U	U
Aluminized Mylar NRC		204	Polyester-Aluminum	1/2 MIL	101A	100	1.6	BC	U	U
Aluminized Mylar (Double Aluminum)		206	Polyester-Aluminum	1/4 MIL	101A	100	1.6	BC	U	U
Kaiser Aluminum Company	Kaiser Aluminum Company	877		0.001	101A	100	6.2	NI	8	8
Kaiser Aluminum Company	Kaiser Aluminum Company	1685	Aluminum Alloy	0.010	101B	100	6.2	NI	8	8
Aluminum Foil Anodized	Metallic Materials Branch, MSFC	1007	Sulfuric acid, anodized, dyed with Sandor Alumina- num Gold B, nickel acetate sealed	0.003	101A	100	6.2	NI	8	8
Armaton 97-001	E. I. du Pont de Nemours Co. & Inc.	1806	Teflon Impregnated Fiberglass	0.011	101A	100	6.2	BC	U	U
Armaton 05049, TFE Coated Beta Sleeve	E. I. du Pont de Nemours Co., & Inc.	1874	Teflon Impregnated Fiberglass	0.008	101B	100	6.2	BC	U	U
Armaton Glass TFE Coated 97001A	E. I. du Pont de Nemours Co., & Inc.	471		0.012	101A	100	6.2	6.3	BC - 34.2	U

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Bottom Ignition Inches/Minute	Material Rating	Type I	Group I
Armalon TFE coated Glass Fabric 410-128	E. I. du Pont de Nemours & Company	343		0.010	101A	100	6.2	NF	BT	BT
Astro Quartz	J. P. Stevens & Company	423		0.020	101A	100	6.2	NF	BT	BT
Ben-Har Lacing Tape TG25	Bentley Harris Manufacturing Company	540		0.014	101A	100	6.2	5.3	22.2	U
Beta Cloth with Acrylic Sizing	Non-Metallic Materials Branch, MFPC	390	Heat cured for 1 hour at 700°F	0.001	101A	100	6.2	—	NF	BT
Beta Cloth, Aluminum Foil, Beta Cloth Composite	Manned Spacecraft Center	388		0.018	101A	100	6.2	—	NF	BT
Beta Cloth, Kel-F, Beta Cloth Composite	Manned Spacecraft Center	387		0.020	101A	100	6.2	—	NF	BT
Beta Cloth, Gold Dyed, Style 3446	Hess & Goldsmith Corporation	1047	Style 270-2-1	0.006	101A	100	6.2	—	NF	BT
Beta Cloth, Yellow Dyed, Style 3468	Hess & Goldsmith Corporation	1049	Style 270-2-2	0.005	101A	100	6.2	—	NF	BT
Buna N, Compound RA-344-50BN	Non-Metallic Materials Branch, MFPC	354		0.074	101A	100	6.2	8.3	BC - 18.8	U
Buna N, Compound RA-346-70BN (60-143)	Non-Metallic Materials Branch, MFPC	403		0.073	101A	100	6.2	4.20	—	U
Butyl Rubber, Compound RA-297-7013 (30-183)	Non-Metallic Materials Branch, MFPC	396		0.080	101A	100	6.2	4.80	—	U
Butyl Rubber, Compound RA-300-70CB (44-163)	Non-Metallic Materials Branch, MFPC	267		0.076	101A	100	6.2	3.00	—	U

MFPC - One Time Test No. 10 (Revised 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute	Bottom Ignition	Top Ignition	Type I	Materials Rating
						%	pH					
Dura-N Rubber	Marshall Space Flight Center	1878	Buna-N Rubber	0.060	101A	Air	14.7		NI	NI	8	8
Cat-A-Lac Epoxy, Top Coat Resin 463-3-8, Batch 9704; Primer 463- 6-5, Batch 9138, 1 MIL on 0.018" Aluminum Foil (Request)	Wornow Processing Company	1817-6	Epoxy Coating	1 MIL	101B	70	6.2		NI	NI	8	8
Cat-A-Lac Epoxy, Top Coat Resin 463-3-8, Batch 9704; Primer 463- 6-5, Batch 9138, 1 MIL on 0.018" Aluminum Foil (Request)	Wornow Processing Company	1818-6	Epoxy Coating	1 MIL	101B	70	6.2		NI	NI	8	8
Cat-A-Lac 483-3-100 Flat White Epoxy Amine, 1 MIL on 0.015" Aluminum 1 MIL on 3 MIL Foil	Wornow Processing Company	1807-6	Epoxy Coating	1 MIL	101B	70	6.2		NI	NI	8	8
Cat-A-Lac 483-3-100 Flat White Epoxy Amine, 1 MIL on 3 MIL Foil	Wornow Processing Company	1808-6	Epoxy Amine	1 MIL	101B	70	6.2		SE	SE	U	BT
Cat-A-Lac Epoxy Primer 463-3-5, Batch 9138, 1 MIL on 3 MIL Foil	Wornow Processing Company	1823-5	Epoxy Coating	1 MIL	101A	70	6.2		BC - 61.7	U	U	U
Cat-A-Lac Epoxy Primer 463-3-5, Batch 9138, 1 MIL on 3 MIL Foil (Request)	Wornow Processing Company	1824	Epoxy Coating	1 MIL	101B	70	6.2		BC - 43.3	U	U	U
Cat-A-Lac Epoxy Primer, 463-3-5, Batch 9138, 1 MIL on 3 MIL Foil (Request)	Wornow Processing Company	1825-5	Epoxy Coating	1 MIL	101B	70	6.2		BC - 47.2	U	U	U
Cat-A-Lac Epoxy Primer, 463-3-5, Batch 9138, 1 MIL on 3 MIL Foil (Request)	Wornow Processing Company	1826-5	Epoxy Coating	1 MIL	101B	70	6.2		BC - 36.0	U	U	U

WERC - One Year Form 10 (Rev. 10-61)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute		Material Rating	Type I Group I
							Top Ignition	Bottom Ignition		
Caulk Cement on 1 Mil Foil	L. D. Caulk Company	1614	Dental Cement	1 Mil	101A	100	6.2		BC - 21	U
Caulk Compound, Non-Burning, RI-3550 on 1 Mil Foil	Raybestos Manhattan Company	111	Fluorocarbon	5 Mil	101B	100	6.2		NT	S
Chemseal 3547 (Clear)	Chemseal Corporation	1094	Modified Polyurethane w/ Filler and Fire Retardant	1 Mil	101A	100	6.2		BC - 40.2	U
Chemseal 3547 (Clear)	Chemseal Corporation	1096		0.100	101A	100	6.2	31.8	BC - 48.0	U
Cho-Seal 1216	Chromerica, Inc.	1800	Conductive Sealant	0.032	101A	100	6.2		BC	U
Cotton		2057	Cellulose	0.056	101A	100	6.2		BC	U
Cox No. 28 Adhesive No. 00038 (Springton Foil)		140		0.020	101A	100	6.2		BC - 12.3	U
Churchill 3C-907 Black	Churchill Chemical Corporation	1082		0.080	101A	100	6.2	14.4	BC - 15.6	U
CNR Rubber	Thiokol Chemical Company	346		0.032	101A	100	6.2	—	NT	BT
CNR Putty, Compound	Thiokol Chemical Company	1014		0.006	101A	100	6.2	—	NT	BT
CNR Coated Beta Cloth	Thiokol Chemical Company	1026		0.006	101A	100	6.2	—	NT	BT
Coast Proseal 796-58	Coast Proseal Corporation	1099		0.090	101A	100	6.2	19.8	BC - 33.0	U
Coast Proseal 796-80 Black	Coast Proseal Corporation	1103		0.090	101A	100	6.2	24.0	BC - 42.6	U
Condthane 3060	Consip, Incorporated	—	Polyurethane	0.190	101A	100	6.2	20.7	—	U
Cork Style 7326	Armstrong Cork Company	44H		0.480	101A	100	6.2	197.8	BC - 373.0	U

WRC - One Test Form 16 (Revised October 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute	Materials Rating
						% pH 10	Top Ignition		
CPR 20-3 Foam	Chemical Plastics Research International Corporation	-	Polyurethane	0.500	101A	100	6.2	372.0	- U V
CPR 369-J Foam	Chemical Plastics Research International Corporation	-	Polyurethane	0.600	101A	100	6.2	-	-
CPR-11-2 Foam insulation	Upjohn Company	1656	Polyurethane	1.0	Torch	Air	14.7	8E	U
Cycodact	Marbon Chemical Corporation	2018-21	Styrene	0.125	101A	28-70	6.0-11.7	BC	U
Cycodact	Marbon Chemical Corporation	1972	Styrene	0.083	101A	Air	14.7	BC	U
Cycodac H-4001 Black	Marbon Chemical Corporation	702	ABS resin	0.005	101A	100	6.2	39.00	- U
Cycodac H-4001 Black	Marbon Chemical Corporation	699	ABS resin	0.010	101A	100	6.2	22.2	- U
Cycodac H-4001 Black	Marbon Chemical Corporation	698	ABS resin	0.020	101A	100	6.2	12.8	- U
Cycodac H-4001 Black	Marbon Chemical Corporation	690	ABS resin	0.040	101A	100	6.2	9.6	- U
Cycodac H-4001 Black	Marbon Chemical Corporation	687	ABS resin	0.050	101A	100	6.2	7.8	- U
Cycodac H-4001 Black	Marbon Chemical Corporation	684	ABS resin	0.060	101A	100	6.2	7.2	- U
Cycodac LT-1000	Marbon Chemical Corporation	681	ABS resin	0.080	101A	100	6.2	5.9	- U
Cycodac LT-1000	Marbon Chemical Corporation	653	ABS resin	0.010	101A	100	6.2	21.6	- U
Cycodac LT-1000	Marbon Chemical Corporation	651	ABS resin	0.020	101A	100	6.2	17.4	- U
Cycodac LT-1000	Marbon Chemical Corporation	647	ABS resin	0.030	101A	100	6.2	13.8	- U
Cycodac LT-1000	Marbon Chemical Corporation	645	ABS resin	0.040	101A	100	6.2	12.0	- U

HTC - Time From Ignition to 10% Weight Loss

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblee, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX % psiA	Flame Propagation Rate Inches/Minute	Material Rating
						Top Ignition	Bottom Ignition	Type I
Cycloac LT-1000	Marbon Chemical Corporation	641	AIR resin	0.050	101A	100	6.2	U
Cycloac LT-1000	Marbon Chemical Corporation	638	AIR resin	0.060	101A	100	6.2	U
Cycloac LT-1000	Marbon Chemical Corporation	636	AIR resin	0.077	101A	100	6.2	U
Cycloac LT-1000	Minnesota Mining & Manufacturing Company	414		0.004	101A	100	6.2	BT
Crystal M Paper	Minnesota Mining & Manufacturing Company	424		0.003	101A	100	6.2	BT
Crystal MG Paper	Minnesota Mining & Manufacturing Company	427		0.065	101A	100	6.2	BT
D-021 Composite	Goodyear Corporation	487	Aluminum foil, polyurethane foam, and rubber composite	1.07	101A	100	6.2	BC - 66.8
DC 325 Compound	Dow Corning Corporation	233		0.085	101A	100	6.2	U
DC 93-027	Dow Corning Corporation	234		0.070	101A	100	6.2	U
DC 93-046	Dow Corning Corporation	235		0.090	101A	100	6.2	U
DF 1700 WB	Dielectric Corporation	141	Teflon	0.033	101A	100	6.2	BC - 20
3-D Insulation	Non-Metallic Materials Branch, MSFC	—	Narmco 7343 seal coat and 116 Volan glass fabric	0.50	101A	100	6.2	U
Diisocyanate Foam	Ames Research Center	1801	Isocyanate	1.00	101B	100	6.2	BC - 619
Dodge Fiber E260	Dodge Industries, Inc.	1749	Teflon Glass Laminate	0.062	101B	100	10.0	SE - 2
								BT

NFTC - One Year Form 15 (Revised 1951)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute	Bottom Ignition	Top Ignition	Type I	Materials Rating
Dodge Fiber E650	Dodge Industries, Inc.	1675	Teflon Glass Laminate	0.062	101B	100	6.2	SE - 1	BT	8	
Dodge Fiber E650	Dodge Industries, Inc.	1675	Teflon Glass Laminate	0.062	101B	100	6.2	SE - 0.4	BT	8	
Dodge Fiber E650-1124	Dodge Industries, Inc.	1566	Teflon Glass Laminate	0.060	101A	100	6.2	NF	BT	8	
Dodge Fiber E650-1124	Dodge Industries, Inc.	1249	Teflon Glass Laminate	0.063	101A	100	6.2	NF	BT	8	
Donaldus Latex Base Paint on 1 Mil Foil	Donaldus Paint Company	1622	Latex Emulsion	0.007	101A	100	6.2	BC - 20	U	U	
Dow Corning Adhesive Silica RTV 3146 (filler on 0.125" thick aluminum)	Dow Corning Corporation	100	Silicone		101A	70	6.2	SE - 0.54	BT	-	
Duro Duriod 215-141 Fabric	E. I. du Pont de Nemours & Company	1048	Teflon sized beta cloth Armalon 95-048	0.007	101A	100	6.2	NF	BT	BT	
Duro Duriod 910	Rogers Corporation	505	Homogeneous blend of Buna-N and cellulose fibers	0.031	101A	100	6.2	3.0	BC - 22.2	U	U
Duro Duriod 3102	Rogers Corporation	481	Noprene, Intex, and asbestos fibers composite	0.031	101A	100	6.2	4.3	BC - 13.8	U	U
Duro Duriod 3110	Rogers Corporation	499	Noprene, Intex, and asbestos fibers composite	0.031	101A	100	6.2	5.9	BC - 13.2	U	U
Duro Duriod 5600	Rogers Corporation	1681	Filled Teflon	0.015	101B	100	6.2		SE - 4.8	U	BT
Duro Duriod 5600	Rogers Corporation	1681	Filled Teflon	0.015	101B	100	6.2		SE - 3.5	U	BT
Duro Duriod 3200	Rogers Corporation	510	Buna-N, Intex, and asbestos fibers composite	0.031	101A	100	6.2	7.2	BC - 26.2	U	U

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor		GOX		Flame Propagation Rate Inches/Minute		Material Rating	
					% Penta	Top Ignition	% Penta	Bottom Ignition	Type I	Group I		
Durod 5600	Rogers Corporation	969	60% Teflon, 40% ceramic composite	0.016	101A	100	6.2	—	NF	BT	BT	BT
Durod 5660	Rogers Corporation	971	75% Teflon, 25% ceramic composite	0.016	101A	100	6.2	—	NF	BT	BT	BT
Durod 5670	Rogers Corporation	973	85% Teflon, 15% glass fibers composite	0.016	101A	100	6.2	—	NF	BT	BT	BT
Dynatherm D-65	Dynatherm Chemical Corporation	—	Inorganic filled polyurethane	0.19	101A	100	6.2	BC - 11.4	—	U	U	U
Dynaflex	Lord Manufacturing Company	2048	Elastomeric Coupling	—	101A	100	6.2	—	BC	U	U	U
EC 2850 GT	Emerson & Cumming Chemical Co.	1149	Filled Epoxy	0.105	101A	100	6.2	—	BC - 9.6	U	U	U
EC 2850 GT	Emerson & Cumming Chemical Co.	1149	Filled Epoxy	0.150	101A	100	6.2	—	BC - 1.2	U	U	U
Emarlon 310, 2 Mil on 1 Mil Foil	Acheson Colloids Company	1201	Organic Bonded Teflon	0.002	101A	100	6.2	—	BC - 180	U	U	U
Emarlon 310, 1 Mil on 1 Mil Foil	Acheson Colloids Company	1199	Organic Bonded Teflon	0.002	101A	100	6.2	—	BC - 138	U	U	U
Emarlon 312, 3 Mil on 1 Mil Aluminum	Acheson Colloids Company	1562	Organic Bonded Teflon	0.003	101A	100	6.2	—	BC - 360	U	U	U
Emarlon 320, 2 Mil on 1 Mil Aluminum	Acheson Colloids Company	1563	Organic Bonded Teflon	0.002	101A	100	6.2	—	BC - 210	U	U	U
EMR-16380R Form	Electrochemical Research, Inc.	1740	Polyurethane Potting Form	0.500	Thinner Burner	Air	14.7	—	BC	U	U	U
EMR-1639A Form	Electrochemical Research, Inc.	1741	Polyurethane Potting Form	0.500	Thinner Burner	Air	14.7	—	BC	U	U	U

NYC - One Time Form 16 (Rev. 10-71)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc. 2001-13	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Materials Rating	
						% psiA	psia	Top Ignition	Bottom Ignition	Type I	Group I
Energy Absorbing Foam 3002-7	Morton Research Company	1587		0.625	101A	100	6.2		BC	U	U
Etched TFE Adhesive Tape Bonded to 1/4" Sheet Moiste Sponge	Marshall Space Flight Center	2056	Teflon	0.648	101A	100	6.2	NL	BC	U	U
Everlube 812 on 1 Milli Aluminum Foil	Everlube Corporation	1216		0.003	101A	100	6.2		NL	S	S
Expanded Polyvinyl Chloride	Plyform Corporation	1241A	Polyvinyl Chloride	0.375	101A	100	6.2		BC	U	U
Epoxy Fiberglass Composite	McDonnell-Douglas Corporation	532	MDC SPFC AJ-850-KODOL- L-7070	0.045	101A	100	6.2	17.4	BC - 20.4	U	U
Ethane	B. F. Goodrich Company	837	Urethane	0.005	101A	100	6.2	65.4	-	U	U
Ethane	B. F. Goodrich Company	835	Urethane	0.010	101A	100	6.2	62.4	-	U	U
Ethane	B. F. Goodrich Company	833	Urethane	0.020	101A	100	6.2	42.0	-	U	U
Ethane	B. F. Goodrich Company	831	Urethane	0.030	101A	100	6.2	27.6	-	U	U
Ethane	B. F. Goodrich Company	828	Urethane	0.040	101A	100	6.2	31.8	-	U	U
Ethane	B. F. Goodrich Company	827	Ethane	0.050	101A	100	6.2	42.6	-	U	U
Ethane	B. F. Goodrich Company	807	Urethane	0.060	101A	100	6.2	42.6	-	U	U
Ethane	B. F. Goodrich Company	805	Urethane	0.080	101A	100	6.2	3.8	-	U	U

NSPC - One Time Form 10 (Rev. 10-1)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Materials Rating
						% petia	Top Ignition	Type I Group I
Elastane	B. F. Goodrich Company	803	Urethane	0.135	101A	100	6.2 21.6	- U U
Elastane	B. F. Goodrich Company	791	Urethane	0.250	101A	100	6.2 42.6	- U U
Ethylene Propylene Compound RA-365-50EP	Non-Metallic Materials Branch, MSFC	357		0.077	101A	100	6.2 6.0	BC - 15.0 U U
Ethylene Propylene Compound RA-367-70EP (30-160)	Non-Metallic Materials Branch, MSFC	398		0.077	101A	100	6.2 3.4	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	856		0.010	101A	100	6.2 60.0	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	854		0.020	101A	100	6.2 33.6	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	852		0.030	101A	100	6.2 26.2	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	850		0.040	101A	100	6.2 21.0	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	847		0.050	101A	100	6.2 20.4	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	845		0.065	101A	100	6.2 18.8	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	843		0.080	101A	100	6.2 16.8	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	841		0.125	101A	100	6.2 16.0	- U U
Ethyl Cellulose	Non-Metallic Materials Branch, MSFC	839		0.250	101A	100	6.2 8.4	- U U

MSFC - One Test Form 1A (Rev. 1-1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Material Rating	
						% pata	Top Ignition	Bottom Ignition	Type I	Group I	
F88 Adhesive on 0.032" Aluminum Foil	Tridox Products Company	1613	Dental Adhesive	0.004	101A	100	6.2		BC	U	U
FEP Coated Monsanto X400	Dodge Industries, Inc.	1639	Teflon	0.068	101A	70	6.2		BC	U	U
FEP Coated Glass	Marshall Space Flight Center	1890	Teflon w/Glass	0.206	101A	70	6.2		NF	S	S
Fiberglass Cylinder Assy Docking Part, MDA-30M- 14280	Marshall Space Flight Center	1756		Bunsen Burner	Air	14.7		SE	S	S	
Fiberglass Epoxy Laminate	Non-Metallic Materials Branch, MSFC	492		0.150			2.1	BC - 4.3	U	U	
Fiberglass Epoxy Assy Dwg. 20M14280	Marshall Space Flight Center	1670	Epoxy w/Fiberglass	0.500	101A	100	6.2	0.13	BC	U	U
Fiberglass Reinforced Silicone Laminate	McDonnell Douglas Corporation	80	Silicone w/Fiberglass	—	101B	100	6.2		BC	U	U
Fiber Nut Lock, 3/8" 24		1603		0.375	101A	100	6.2		BC	U	U
Flexihalt US-77	Flexihalt Products Company	17719	Per ASTM D1682	0.75	Bunsen Burner	Air	14.7		SE	S	S
Fluorel Cushion Clamp P/N 967	R. E. Darling Company	1801	Fluorelastomer	0.178	101A	100	6.2		NF	BT	BT
Fluorel Cushion Clamp	R. E. Darling Company	1801	Fluorelastomer	0.187	101B	100	6.2		SE	BT	BT
Fluorel Elastomer L-2221	Minnesota Mining & Manufacturing Company	993	Cure date 11-2-67	0.065	101A	100	6.2	—	NF	BT	BT
Fluorel Elastomer	Minnesota Mining & Manufacturing Company	237	Standard Fluorel Elastomer	0.080	101A	100	6.2	0.30	—	U	U

NSPR - One Time Form 14 (Rev. November 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Material Rating	Type I	Group I
									Top Ignition	
Fluorelastomer	Colonial Rubber Company	897		0.040	101A	100	6.2	1.8	BC - 11.4	U
Fluorosilicon Compound RA-277-6015	Non-Metallic Materials Branch, MSFC	359		0.076	101A	100	6.2	3.8	BC - 4.6	U
Fluorglass M-385-10	Dodge Fibers Corporation	823	Teflon coated glass fabric	0.010	101A	100	6.2	—	NI	BT
Fluorglass M-385-10	Dodge Fibers Corporation	968	Teflon coated glass fabric	0.010	101A	100	6.2	—	NI	BT
Fluorglass 387-3	Dodge Fibers Corporation	948	Teflon TFE coated glass fabric	0.003	101A	100	6.2	NI	BC - 0.44	U
Fluorglass 387-5	Dodge Fibers Corporation	948	Teflon TFE coated glass fabric	0.005	101A	100	6.2	—	NI	BT
Fluorglass 387-6	Dodge Fibers Corporation	957	Teflon TFE coated glass fabric	0.006	101A	100	6.2	NI	NI	BT
Fluorglass 387-10	Dodge Fibers Corporation	958	Teflon TFE coated glass fabric	0.010	101A	100	6.2	—	NI	BT
Fluorglass 391-4	Dodge Fibers Corporation	946	Teflon FEP coated glass fabric	0.004	101A	100	6.2	—	NI	BT
Fluorglass 391-5	Dodge Fibers Corporation	942	Teflon FEP coated glass fabric	0.005	101A	100	6.2	—	NI	BT
Fluorglass 391-10	Dodge Fibers Corporation	819	Teflon FEP coated glass fabric	0.010	101A	100	6.2	—	NI	BT
Fluorinated Polyurethane	Narmco Research & Development Company	1626	Fluorinated Polyurethane	0.018	101A	100	6.2	—	NI	BT
Fluorinated Polyurethane NASA-1106-FI-2	Narmco Research & Development Company	1625	Fluorinated Polyurethane	0.016	101A	100	6.2	—	NI	BT

NI = Non-Flameable (Non-flammable)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Material Rating	
						% petal	Top Ignition	Bottom Ignition	Type I	Group I	
Form, Grade 10-800	Scott Paper Company	1764	Polyurethane	0.125	101A	100	6.2	BC	U	U	
FR-45 Copper Clad on Both Sides	Formica Corporation	1830		0.070	101A	100	6.2	SE	U	BT	
From E1	E. I. du Pont de Nemours Co., & Inc.	125	Fluorinated Ether	—	101B	100	6.0	NF	S	S	
From E2	E. I. du Pont de Nemours Co., & Inc.	116	Fluorinated Ether	100 ml.	101A	100	6.2	NF	S	S	
General Sealant No. 43	General Sealant Company	2061		0.02		100	6.2	BC	U	U	
General Sealant No. 210	General Sealant Company	2060		0.02		100	6.2	BC	U	U	
Glass Cloth w/Moisture 1079K	General Sealant Company	1MHA	Fluorocelastomer w/Glass Cloth	0.008	101A	70	0.2	RF - 1.2	U	BT	
Glass Fabric	Clark-Schewbel Fiberglass Corporation	998		0.003	101A	100	6.2	SE	BT	BT	
Glass Resin No. 100 Clear	Owens Corning Corporation	151	6.4% silica dioxide, 16.4% butyl phenyl	0.076	101A	100	6.2	1.5	BC - 2.6	U	
Glass Resin No. 100 Clear	Owens Corning Corporation	456	6.4% silica dioxide, 36.4% butyl phenyl	0.332	101A	100	6.2	0.64	BC - 1.7	U	
Glass Resin 100 Fiberglass Laminate	Owens Corning Corporation	466	14 plies of 181-112 NPH glass cloth impregnated with 30% No. 100 resin	0.105	101A	100	6.2	NF	BT	BT	
Glass Resin 90R, Fiberglass Laminate	Martin-Marietta Corporation	1844	Fiberglass Resin Laminate	0.045	101A	100	6.2	BC	U	U	
Glass Sewing Thread, Coated w/PTFE	Dodge Industries	1222	Teflon Coated Thread	0.008	101A	100	6.2	NF	S	S	

©TC - Test Time - Form 16 (Revised 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Materials Rating	
						% pKa	Ignition	Top	Bottom	Ignition	Type I Group I
Fluorogreen E-600	John L. Dore' Company	1614	Filled Teflon	0.125	101B	100	6.2			NF	BT
Fluorogreen E-600	John L. Dore' Company	455	Filled Teflon	0.125	101A	100	6.2			NF	BT
Fluorogreen E-600	John L. Dore' Company	1672	Filled Teflon	0.070	101B	100	6.2			8E - 0.11	BT
Fluorogreen E-600	John L. Dore' Company	359	Filled Teflon	0.016	101A	100	6.2			NF	BT
Fluorogreen E-600	John L. Dore' Company	1672	Filled Teflon	0.070	101B	100	6.2			8E - 0.50	BT
Fluorogreen E-600	John L. Dore' Company	450	Filled Teflon	0.060	101A	100	6.2			NF	BT
Fluorogreen E-600	John L. Dore' Company	1555	Filled Teflon	0.010	101A	100	6.2			NF	BT
Fluorogreen E-600	John L. Dore' Company	1583	Filled Teflon	0.010	101B	100	6.2			BC	BT
Fluorogold	Fluorocarbon, Inc.	1642	Filled Teflon	0.125	101A	70	6.2			NF	BT
Fluoroelastomer Rubber	Dow Corning Corporation	2043	Fluorinated Silicone Elastomer	0.125	101A	50	6.2			BC	U
Fluoroelastomer Rubber	Dow Corning Corporation	2047	Fluorinated Silicone Elastomer	0.125	101A	70	8.5			BC	U
Foam, Blue	National Gypsum Company	1664	Polyurethane	1.0	Bunsen Burner	Air	14.7			SE	S
Foam, Grey	National Gypsum Company	1665	Polyurethane	1.0	Bunsen Burner	Air	14.7			SE	S
Foam, Yellow	National Gypsum Company	1666	Polyurethane	1.0	Bunsen Burner	Air	14.7			SE	S
Foam, Insulation	Nopco, Inc.	1667	Polyurethane	0.375	Bunsen Burner	Air	14.7			SE	S

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TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Materials Rating	
						% psia	Top Ignition	Bottom Ignition	Type I	Group I	
Green ADEL Clamp, P/N 432	Otter, Inc.	1841	Teflon Impregnated Asbestos	0.75" Dia.	101B	100	6.2		N1	8	8
Green Carpet	W. R. Grace Company	678		0.250	101A	70	6.2		BC	U	U
Grex Polyolefin	W. R. Grace Company	674		0.006	101A	100	6.2	28.2	—	U	U
Grex Polyolefin	W. R. Grace Company	672		0.010	101A	100	6.2	30.6	—	U	U
Grex Polyolefin	W. R. Grace Company	668		0.020	101A	100	6.2	22.2	—	U	U
Grex Polyolefin	W. R. Grace Company	666		0.030	101A	100	6.2	16.2	—	U	U
Grex Polyolefin	W. R. Grace Company	664		0.040	101A	100	6.2	16.0	—	U	U
Grex Polyolefin	W. R. Grace Company	662		0.050	101A	100	6.2	13.2	—	U	U
Grex Polyolefin	W. R. Grace Company	660		0.060	101A	100	6.2	16.2	—	U	U
Grex Polyolefin	W. R. Grace Company	658		0.080	101A	100	6.2	10.8	—	U	U
Halon G-700	Allied Chemical Company	1761	TFE Teflon	0.130	101A	100	6.2		BC	U	BT
Halon G-700	Allied Chemical Company	1767	TFE Teflon	0.245	101A	100	6.2		SE - 1	BT	8
Halon G-700	Allied Chemical Company	1768	TFE Teflon	0.375	101A	100	6.2		N1	S	S
H-Cement on 1 Mil Aluminum Foil	L. D. Caulk Company	1631		0.005	101A	100	6.2		N1	8	8
H-Cement on 1 Mil Aluminum Foil	L. D. Caulk Company	1631		0.005	101A	100	12.0		N1	8	8
Herculite Glass	PPG Industries	1770		0.25	101B	100	6.2		N1	S	S

NSPC - One Year Period (November 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Top Ignition Inches/Minute	Bottom Ignition SE (2-L/2")	Type I	Materials Rating	Group I
HI D-5-37 Teflon Coated Glass Fabric	Taconics Plastics Corporation	722	5-mil TFE coated 116 glass cloth	0.004	101A	100	6.2	—	SE (2-L/2")	U	BT
HI D-5-37 Teflon Coated Glass Fabric	Taconics Plastics Corporation	768	5-mil TFE coated 116 glass cloth	0.004	101A	100	6.2	—	SE (3-L/2")	U	BT
HI D-5-40B Teflon Coated Glass Fabric	Taconics Plastics Corporation	756	5-mil Teflon coated 116 beta cloth	0.004	101A	100	6.2	—	BC - 16.4	U	U
HI D-5-50 Teflon Coated Glass Fabric	Taconics Plastics Corporation	432	5-mil Teflon coated 116 glass cloth	0.006	101A	100	6.2	SE	BC - 15.6	U	U
HI D-5-50 Teflon Coated Glass Fabric	Taconics Plastics Corporation	761	5-mil Teflon coated 116 glass cloth	0.006	101A	100	6.2	—	BC - 11.4	U	U
HI D-5-50 Teflon Coated Glass Fabric	Taconics Plastics Corporation	717	5-mil Teflon coated 116 glass cloth	0.006	101A	100	6.2	SE	BC - 12.6	U	U
HI D-10-77 Teflon Coated Glass Fabric	Taconics Plastics Corporation	721	10-mil Teflon coated on 7-mil 128 glass cloth	0.008	101A	100	6.2	NI	SE (2")	BT	BT
HI D-10-86 Teflon Coated Glass Fabric	Taconics Plastics Corporation	767	Teflon coated 128 glass cloth	0.010	101A	100	6.2	—	BC - 5.4	U	U
Hercelite, 18 oz. Material	Hercules Powder Company	922	Vinyl nylon laminate per MIL-C-43006B	0.024	101A	100	6.2	21.0	—	U	U
Hercelite, 6 oz. Material	Hercules Powder Company	929	Vinyl nylon laminate per MIL-C-43006B	0.010	101A	100	6.2	47.4	—	U	U
Humbleville Phone Directory	Southern Bell Telephone and Telegraph Company	546	Paper dated August 28, 1960	0.76	101A	100	6.2	6.0	BC - 35.6	U	U
Hypalon 20	Non-Metallic Materials Branch, MSFC	284	Compound RA-300-70H (30-MR3)	0.075	101A	100	6.2	2.1	—	U	U
Hypol 12-007-A	Hycel Chemical Company	10RA	—	0.120	101A	100	6.2	49.2	BC - 13.8	U	U

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TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute		Material Rating	Type I	Group I
							psia	Top Ignition	Bottom Ignition		
HT2-16 Shock Mount	Lorit Manufacturing Company	1951		—	101A	70	6.2		NI	S	S
HT2-35 Shock Mount	Lord Manufacturing Company	1951		—	101B	70	6.2		NI	S	S
Interior 7240	Interelectronics	1843	High Temperature	0.312	101A	70	6.2		BC	U	U
Iridia Refract	H. J. Thompson Company	391		0.175	101A	100	6.2		NI	BT	BT
Johns Manville Asbestos	Johns Manville Corporation	1556		0.122	101A	100	6.2		NI	S	S
Kapton X-986	E. I. du Pont de Nemours & Company	1015	Polyimide	0.065	101A	100	6.2	16.2	BC = 35.4	U	U
Kel-F	Minnesota Mining & Manufacturing Company	1705	Trifluorochloroethylene	0.400	101A	70	6.2		NI	S	S
Kel-F Elastomer 3700	Minnesota Mining & Manufacturing Company	236	Chlorofluorocarbon	0.080	101A	100	6.2	SE	—	BT	BT
Kel-F Plastic	Minnesota Mining & Manufacturing Company	470		0.060	101A	100	6.2	SE	SE	BT	BT
Kel-F	Minnesota Mining & Manufacturing Company	1652	Trifluorochloroethylene	0.400	101A	100	6.2		NI	S	S
Kel-F	Minnesota Mining & Manufacturing Company	1651	Trifluorochloroethylene	0.265	101A	100	6.2	SE	U	BT	
Kel-F	Minnesota Mining & Manufacturing Company	1703	Trifluorochloroethylene	0.250	101A	70	6.2		NI	BT	S
Kel-F	Minnesota Mining & Manufacturing Company	1708	Trifluorochloroethylene	0.085	101A	70	6.2	SE	U	S	
Kynar	Raychem Corporation	2026	Vinylidene Fluoride Resin	0.63	101A	100	6.2	BC	U	U	

NSPC - One Time Form 16 (Rev. No. 17-11)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute		Material Rating
							Top Ignition	Bottom Ignition	
Kynar, Cable Clamp	Raychem Corporation	1769	Vinylidene Fluoride Resin	0.063	101A	100	6.2	—	U U
Krylon Regal Blue 1901	Krylon, Incorporated	867	Sprayed on 1-mil aluminum foil	0.001	101A	100	6.2	BC - 960.0	U U
L-6-2-3 Porcelain Enamel on 3 Mil Foil	Marshall Space Flight Center	1843	Porcelain	0.17	101A	100	6.2	NI	S S
LA-141 Mg-Li Alloy	Marshall Space Flight Center	1582	Mg-Li Alloy	0.018	101B	100	6.2	BC	U U
Lacing Tape E-778-303, Teflon Coated	Dodge Industries	1868	Teflon-Fiberglass	0.003	101A	100	6.2	SE	BT BT
Laminar X-500, Primer Mil-C-85-14, 1 Mil on 0.016" Aluminum Foil	Dexter Chemical Company	1920	Polyurethane Film on Aluminum Foil	0.001	101B	70	6.2	NI	S S
Laminar X-500, 1 Mil on 3 Mil Foil	Dexter Chemical Company	1921	Polyurethane Film on Aluminum Foil	0.001	101B	70	6.2	BC	BT U
Laminar X-500, 1 Mil on 3 Mil Foil	Dexter Chemical Company	1922	Polyurethane Film on Aluminum Foil	0.001	101B	70	6.2	BC - 36	BT U
Laminar X-500, 1 Mil on 3 Mil Foil	Dexter Chemical Company	1928	Polyurethane Film on Aluminum Foil	0.001	101A	70	6.2	NI	BT BT
Laminar X-500, 1 Mil on 3 Mil Foil	Dexter Chemical Company	192N	Polyurethane Film on Aluminum Foil	0.001	101A	70	6.2	NI	BT BT
Laminar X-500 over Fluorel	McDonnell Douglas Corporation Eastern Division	2039	Fluoroclastomer	0.020	101A	70	6.2	SE	BT BT
Laminated Aluminum - Cardboard	McDonnell Douglas Corporation Western Division	2030	Cardboard - Aluminum Laminated	4.4	101A	100	6.2	SE	BT BT
Lexan	General Electric Company	112	Polycarbonate	0.125	101B	30	10.0	SE	BT BT

NOTE - new Test No. 18 introduced 1951

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Materials Rating		
						% psi	Top Ignition	Bottom Ignition	Type I	Group I
Lexan	General Electric Company	1558	Polycarbonate	0.125	101A	100	6.2	BC	U	U
Lexan	General Electric Company	1845	Polycarbonate	0.183	101A	100	6.2	BC	U	U
Lexan	General Electric Company	1846	Polycarbonate	0.183	101A	70	6.2	BC	U	U
Lexan	McDonnell Douglas Company	2017	Polycarbonate	0.020	101A	70	6.2	BC	U	U
Lexan	General Electric Company	1560	Polycarbonate	0.250	101A	100	6.2	BC	U	U
Lexan 103, GE 250	Minnesota Mining & Manufacturing Company	6	Polycarbonate w/Nextel over Aluminum	0.40	101A	30	6.2	BC	U	U
Lexan, 0.042" Thick #400 Acier Painted Nextel Grey on 0.032" Aluminum	Sylvania Corporation	1826	Polycarbonate	0.020	101A	100	6.2	BC	U	U
Lexan Tube, 1/8" Wall, 1 1/16" OD	Sylvania Corporation	1827	Polycarbonate w/Teflon	0.026	101A	100	6.2	BC	U	U
Lexan Tube Covered w/n. (26" FEP	Sylvania Corporation	99	Polyacrylonic acid on Titanium Alloy	0.250	101B	100	6.2	BCC	U	U
Lexan w/5Al-2.5Sn Titanium Alloy	Marshall Space Flight Center	1823	Polycarbonate w/Paint Coat	0.250	101A	100	6.2	BC	U	U
Lexan w/Micron Coat	General Electric Company	1824	Polyacrylate w/Cement	0.136	101A	100	6.2	BC	U	U
Lexan Coated w/H-Cement	Connecticut Hard Rubber Company	474	Teflon coated glass	0.010	101A	100	6.2	SE	BC - 7.8	U
Lexo Weave	General Electric Company	1074	Polyacrylate resin	0.020	101A	100	6.2	12.6	-	U
Lexan	General Electric Company	557	Polyacrylate resin	0.035	101A	100	6.2	10.8	BC - 32.4	U

SE = Self Extincting Time Factor is (Time required for 50%)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Bottom Ignition Inches/Minute	Material Rating			
						Top Ignition %	Type I	Group I			
Lexan	General Electric Company	1066	Polycarbonate resin	0.060	101A	100	6.2	7.2	-	U	U
Lexan	General Electric Company	1064	Polycarbonate resin	0.125	101A	100	6.2	4.7	-	U	U
Lexan	General Electric Company	1060	Polycarbonate resin	0.250	101A	100	6.2	2.2	1.8	U	U
Lead Porcelain Enamel on 1 Mil Foil		1661	Porcelain Coating	0.004	101A	100	6.2	NL	S	S	
Lithium-Magnesium Alloy LA-141	Marshall Space Flight Center	1577	Li-Mg Alloy	0.018	101A	100	6.2	NL	U	U	
I.S.-53	Dow Corning Corporation	1539	Fluorosilicone	0.063	101A	100	6.2	BC-57	U	U	
Magna Conductive Coating 1 Mil on 0.016" Aluminum	Magna Coating & Chemical Corp.	1910	Coated Polyurethane	0.016	101B	70	6.2	NL	BT	BT	
Magna Conductive Coating 1 Mil on 3 Mil Foil	Magna Coating & Chemical Corp.	1909	Coated Polyurethane	0.004	101B	70	6.2	BC	U	U	
MDA Window	Marshall Space Flight Center	116	Methacrylate	0.125	101B	30	10.0	BC	U	U	
MDA Window Frame	Marshall Space Flight Center	1801	Fiberglass Epoxy	0.040	101A	100	6.2	BC	U	U	
Micarta Beige, 75% HXW- 25% Sears Parchment Beige	Marshall Space Flight Center	1846	Paint, MSFC Spec 10M01R43	0.003	101A	100	6.2	SE	U	BT	
Micarta, 75/25 Napco Bleed on 1 Mil Foil	Napco Paint & Chemical Corp.	1777	Paint, MSFC Spec 10M01R43	0.003	101A	100	6.2	BC	BT	BT	
Micarta, 50/50 SW Tinting White on 3 Mil Foil	Marshall Space Flight Center	1831	Paint, MSFC Spec 10M01R43	0.002	101A	100	6.2	NL	BT	BT	
Micarta, 60/50 SW A-100 Exterior Latex	Marshall Space Flight Center	1832	Paint, MSFC Spec 10M01R43	0.002	101A	100	6.2	BC	BT	BT	

SE = Slow Flame Test (Minimum 10 sec.)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Materials Rating		
						psia	Top Ignition	Bottom Ignition	Type I	Group I
Micatex, 50/50 SW Latex Superior White A-100 Latex As-W40 on 3 Milli Foil	Marshall Space Flight Center	1833	Paint, MSFC Spec 10M01843	0.002	101A	70	6.0	NI	BT	BT
Micatex, 50/50 White on 1 Milli Foil	Baltimore Paint & Chemical Co.	1736	Paint, MSFC Spec 10M01843	0.006	101A	100	6.2	BC	BT	BT
Micatex 50/50 MDAC on 1 Milli Foil	McDonnell Douglas Company	1777	Paint on Foil	0.003	101A	100	6.2	BC	BT	BT
Micatex-Wards, 50/50 on 1 Milli Foil	Marshall Space Flight Center	1780	MSFC Paint, Spec 10M01843	0.002	101A	100	6.2	BC	BT	BT
Micatex-Wards, 50/50 Yellow on 1 Milli Foil	Marshall Space Flight Center	1785	MSFC Paint Spec 10M01843	0.002	101A	100	6.2	BC	BT	BT
Micatex-Donahue, 50/50 on 1 Milli Foil	Marshall Space Flight Center	1791	MSFC Paint Spec 10M01843	0.003	101A	100	6.2	SE	BT	BT
Micatex, 25/75 Glidden Yellow on 1 Milli Foil	Marshall Space Flight Center	1746	Paint, MSFC Spec 10M01843	0.002	101A	100	6.2	SE	BT	BT
Micatex, 25/75 Gleem White on 1 Milli Foil	Marshall Space Flight Center	1747	Paint, MSFC Spec 10M01843	0.002	101A	100	6.2	SE	BT	BT
Micatex, 25/75 Mary Carter White on 1 Milli Foil	Marshall Space Flight Center	1750	Paint, MSFC Spec 10M01843	0.002	101A	100	6.2	SE	BT	BT
Micatex, 25/75 Pittsburgh Yellow on 1 Milli Foil	Marshall Space Flight Center	1751	Paint, MSFC Spec 10M01843	0.003	101A	100	6.2	SE	BT	BT
Micatex-Donahue, 25/75 on 1 Milli Foil	Marshall Space Flight Center	1781	MSFC Paint Spec 10M01843	0.002	101A	100	6.2	NI	BT	BT
Micatex, 25/75 SW on 1 Milli Foil	Marshall Space Flight Center	1782	MSFC Paint Spec 10M01843	0.002	101A	100	6.2	BC	BT	BT

MSFC - Marshall Space Flight Center (NASA-HQ-151)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX % psiA	Flame Propagation Rate Inches/Minute	Materials Rating	
								Type I	Group I
Micalex-Sears, 25/75 on 3 Mil Foil	Marshall Space Flight Center	1783	MSFC Paint Spec 10M01R43	0.002	101A	100	6.2	NI	BT
Micalex-Napco, 25/75 on 3 Mil Foil	Marshall Space Flight Center	1784	MSFC Paint Spec 10M01R43	0.005	101A	100	6.2	BC	BT
Micalex-Gleem, 25/75 on 1 Mil Foil	Marshall Space Flight Center	1779	MSFC Paint Spec 10M01R43	0.002	101A	100	6.2	NI	BT
Micalex, 15/85 SW 320-7-200 on 1 Mil Foil	McDonnell Douglas Company	1776	MSFC Paint Spec 10M01R43	0.004	101A	100	6.2	BC	BT
Micalex Relige on 1 Mil Foil	Marshall Space Flight Center	1696	Paint, MSFC Spec 10M01R43	0.001	101B	100	6.2	PC	BT
Micalex Blue on 3 Mil Copper	Marshall Space Flight Center	1687	Paint, MSFC Spec 10M01R43	0.005	101B	100	6.2	SF	BT
Micalex-SW Interior Latex Tinting White on 3 Mil Foil	Marshall Space Flight Center	1784	MSFC Paint Spec 10M01R43	0.001	101A	70	6.2	NI	BT
Micalex-SW Exterior A103 Coated w/Kel-F-800 on 3 Mil Foil	Marshall Space Flight Center	1837	MSFC Paint Spec 10M01R43	0.002	101A	100	6.2	BC	BT
Monsanto X-400 Fabric	Monsanto Corporation	1841	Nylon	0.011	101A	100	6.2	PC	U
Monsanto X-410 Fabric	Monsanto Corporation	1842	Nylon	0.011	101A	100	6.2	BC	U
Moelite 1069	Moelite Rubber Company	1681	Fluorinated Elastomer	0.080	101B	100	6.2	BC	BT
Moelite 1069	Moelite Rubber Company	1681	Fluorinated Elastomer	0.080	101B	100	6.2	SE	BT
Moelite 1069	Moelite Rubber Company	1057	Fluorinated Elastomer	0.080	101A	100	6.2	NI	BT
Moelite 1062	Moelite Rubber Company	1225	Fluorinated Elastomer	0.440	101A	100	6.2	NI	BT

MSFC - Test Form 1A (Rev. October 1961)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute		Material Rating	
							% pela	Top Ignition	Bottom Ignition	Type I
Mosite 10448 Coated on Glass Fabric, Cured at 400°F for 4 Hours	Mosite Rubber Company	1669	Fluorinated Elastomer	0.020	101A	100	6.2		BC	U
Mosite 1062	Mosite Rubber Company	1055	Fluorinated Elastomer	0.060	101A	100	6.2		SE	BT
Mosite 1079K	Mosite Rubber Company	88	Fluorinated Elastomer	0.025	101A	70	6.2		SE	BT
Mosite 1079K	Mosite Rubber Company	89	Fluorinated Elastomer	0.025	101B	70	6.2		SE	BT
Mosite 1079K	Mosite Rubber Company	86	Fluorinated Elastomer	0.020	101B	70	6.2		SE	BT
Mykroy 750 Ceramic	Mykroy Corporation	1580	Glass Bonded Mica	0.250	101A	100	6.2		NI	S
Mykroy 1100 Ceramic	Mykroy Corporation	1586	Glass Bonded Mica	0.265	101A	100	6.2		NI	S
Mylar	F. I. du Pont de Nemours Co., & Inc.	2077	Polyester Film	0.0006	101A	100	1.0		SE	—
NAR-Downey NDO-125-018 Blue Polyester Nextel, 2 Mil Thick on 2 Mil Foil	North American Rockwell Corp.	1803	Polyester Paint	0.002	101B	70	6.2		BC	U
NAR-Downey NDO-125-019 Blue Polyester Nextel, 2 Mil on Aluminum	North American Rockwell Corp.	1804	Polyester Paint	0.002	101B	60	6.2		NI	BT
NAR White Epoxy Polyimide NDO-125-008 on 0.015" Aluminum	Fuller Paint Company	1806	Epoxy Paint	0.002	101B	70	6.2		NI	BT
Narmco 4373	Whittaker Corporation	1019		0.100	101A	100	6.2	26.4	—	U
Narmco 4373	Non-Metallic Materials Branch, MSFC	1022	Covered with 6-mil aluminum foil	0.115	101A	100	6.2	—	NI	BT

©FC - Fire Test Panel (Continued)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	% GOX	Flame Propagation Rate Inches/Minute	Material Rating	
								Type I	Group I
Monite 1077	Monite Rubber Company	1745	Fluorinated Elastomer	0.076	101B	100	6.2	SE	BT
Monite 1077	Monite Rubber Company	1748	Fluorinated Elastomer	0.075	101B	100	10.2	BC	BT
Monite 1079D Coated Beta Fabric	Monite Rubber Company	57	Fluorinated Elastomer	0.010	101B	70	6.2	SE	BT
Monite 1079K	Monite Rubber Company	86	Fluorinated Elastomer	0.125	101A	70	6.2	NI	BT
Monite 1079K	Monite Rubber Company	87	Fluorinated Elastomer	0.125	101B	70	6.2	NI	BT
Monite 1079K, Lot 724- M-70/711	Monite Rubber Company	1817	Fluoroclastomer	0.064	101A	70	6.2	NI	BT
Monite 1079K, Lot 726- M-70/711	Monite Rubber Company	1817	Fluoroclastomer	0.063	101B	70	6.2	NI	BT
Monite 1079K, Lot 726- M-70/75F	Monite Rubber Company	1818	Fluoroclastomer	0.063	101B	70	6.2	SE	BT
Nomex Coated ES4A	National Cash Register Co.	1948	High Temp. Nylon	0.003	101A	60	6.0	BC	U
Nomex Uncotted	National Cash Register Co.	1947	High Temp. Nylon	0.003	101A	70	6.0	BC	U
Nomex Paper ES4A and 410	F. du Pont de Nemours Co.	2032	High Temp. Nylon	—	101A	100	6.2	BC	U
Nopco Film		383	With I.C.2B Flame retardant	1.0	101A	100	6.2	—	U
Novabestos 7511T	Raybestos-Manhattan Corporation	1027		0.020	101A	100	6.2	NI	BT
Novabestos 7511T	Raybestos-Manhattan Company	1684		0.017	101B	100	6.2	BC	U
Novabestos 7511T	Raybestos-Manhattan Company	1684		0.017	101B	100	6.2	BC	U

NI = Not Ignited; SE = Self-extinguishing; BC = Burns Continuously; BT = Burns Temporarily; U = Unburned.

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	% psia	Flame Propagation Rate Inches/Minute	Material Rating	
									Type I	Group I
Narmco 7343	Whitaker Corporation	—	Polyurethane	0.188	101A	100	6.2	16.6	—	U U
Natural Rubber	Non-Metallic Materials Branch, MSFC	272	Compound RA-23-80M (20-44)	0.083	101A	100	6.2	4.1	—	U U
Neoprene Rubber	Non-Metallic Materials Branch, MSFC	346	Compound RA-240-50ME	0.080	101A	100	6.2	—	BC - 13.2	U U
Neoprene Modified Foam Covered w/Aluminized Stran on Both Sides		1902	Neoprene-Aluminized Saran Sandwich		101B	70	6.2		BC	U U
Nickel Wool		1892	Nickel Metal	0.027	101A	70	6.2		NI	S S
Nickel Wool		1893	Nickel Metal	0.027	101B	70	6.2		NI	S S
Nomex 410 Plus Calcium Carbonate	National Cash Register Co.	1853	High Temp. Nylon	0.003	101A	70	6.2		BC	U U
Nomex 410 Uncoated	National Cash Register Co.	1852	High Temp. Nylon	0.003	101A	70	6.2		BC	U U
Mosite 1068 Coated on 1584 Glass Fabric	Mosite Rubber Company	1610	Fluorinated Elastomer	0.018	101A	100	6.2		BC	U BT
Mosite 1071	Mosite Rubber Company	1639	Fluorinated Elastomer	0.314	101A	100	6.2		SE	BT
Mosite 1072	Mosite Rubber Company	1608	Fluorinated Elastomer	0.500	101A	100	6.2		SE	BT
Mosite 1076	Mosite Rubber Company	1710	Fluorinated Elastomer	0.077	101B	100	6.2		SE	BT
Mosite 1077	Mosite Rubber Company	1713	Fluorinated Elastomer	0.075	101B	100	6.2		SE	BT
Mosite 1077	Mosite Rubber Company	1724	Fluorinated Elastomer	0.075	101A	100	6.2		NI	BT

MSFC - Non Testable (Non-flammable)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Material Rating	
						% psiA	Top Ignition	Type I	Group I
NRC Insulation	Marshall Space Flight Center	215	Aluminized Mylar	0.0005	101A	100	1.0	BC	U
Nylon Tape on 3 Mil Film		1852	Nylon Tape	0.004	101A	70	6.0	BC	U
Nylon Nut Lock 1/4 - 28		1604	Nylon Tape	0.250	101A	100	6.2	BC	U
Paint, Velvet 401 M 063AL	Minnesota Mining & Mfg. Co.	41	On Wheel	0.064	101B	100	6.2	NI	BT
Pall Rigi Mesh PMS	Aircraft Porous Media Co.	1600	Porous Media	0.007	101A	100	6.2	NI	S
Pall Rigi Mesh PMS	Aircraft Porous Media Co.	1600	Porous Media	0.017	101A	100	6.2	NI	S
Pall Rigi Mesh PMS	Aircraft Porous Media Co.	1600	Porous Media	0.037	101A	100	6.2	NI	S
Paper 7742E	Scheufelen Paper Company	1572		0.008	101A	100	6.2	BC	BT
Paper 1142F 68-1276	Scheufelen Paper Company	1724		0.005	101B	100	6.2	SE	BT
Paper 1142-F 68-1276	Scheufelen Paper Company	1725		0.005	101A	100	6.2	SE	BT
Paper 1142-F 68-1276	Scheufelen Paper Company	1726		0.005	101B	100	6.2	SE	BT
Paper 7742F	Scheufelen Paper Company	1573		0.006	101A	100	6.2	BC	BT
Paper 1142-FGR F20	Scheufelen Paper Company	2046		0.013	101A	100	6.2	SE	BT
Paper 1142-FGS-E20	Scheufelen Paper Company	1819		0.004	101A	70	6.2	BC	BT
Paper 1142-FGS-E20 w/Prime and Reactive Coat, Top Coat	Scheufelen Paper Company	2065		0.013	101A	100	6.2	BC	BT
Paper Seal, Compound V672-76	Parker Seal Company	1607		0.065	101A	100	6.2	BC	U

NI = Not Ignited
SE = Self Extincting
BT = Burns Through
U = Unstable

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	% peia	Flame Propagation Rate Inches/Minute	Materials Rating	
									Type I	Group I
Parton Silicone Compound 1306-40	Parco Rubber Company	765	0.25 Inch diameter O-ring	0.25	101A	100	6.2	6.8	U	U
Penton	Hercules Powder Company	628	Chlorinated polyethylene	0.005	101A	100	6.2	37.9	U	U
Penton	Hercules Powder Company	625	Chlorinated polyethylene	0.010	101A	100	6.2	24.6	U	U
Penton	Hercules Powder Company	624	Chlorinated polyethylene	0.020	101A	100	6.2	21.0	U	U
Penton	Hercules Powder Company	619	Chlorinated polyethylene	0.030	101A	100	6.2	20.4	U	U
Penton	Hercules Powder Company	621	Chlorinated polyethylene	0.040	101A	100	6.2	16.8	U	U
Penton	Hercules Powder Company	613	Chlorinated polyethylene	0.050	101A	100	6.2	16.6	U	U
Penton	Hercules Powder Company	610	Chlorinated polyethylene	0.060	101A	100	6.2	13.8	U	U
Penton	Hercules Powder Company	607	Chlorinated polyethylene	0.080	101A	100	6.2	10.8	U	U
Penton	Hercules Powder Company	631	Chlorinated polyethylene	0.115	101A	100	6.2	7.2	U	U
Penton	Hercules Powder Company	633	Chlorinated polyethylene	0.245	101A	100	6.2	3.7	U	U
PC-22	Hysol Chemical Company	1175		0.080	101A	100	6.2	BC	U	U
Phenolic Impregnated Fiberglass	McDonnell Douglas Corporation Western Division	79	Phenolic		101B	100	6.2	BC	U	U
Pile Tape P-537 Beta Ground Tape - Teflon Pile Flocked Modified Fluorel Backing	Velcro Corporation	1551	Modified Tape	0.125	101A	100	6.2	NF	BT	BT
Plaskon CTFE 2200	Allied Chemical Company	1763	Chlorofluorocarbon resin	0.045	101A	100	6.2	BC	U	BT

SPFC - Sheet Form 16 (Revised 1951)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Material Rating	Type I	Group I
						% psi	Top Ignition	Bottom Ignition	Type I	Group I
Plastkon CTFE 2200	Allied Chemical Company	1754	Chlorofluorocarbon resin	0.100	101A	100	6.2	BC	U	BT
Plastkon CTFE 2200	Allied Chemical Company	1755	Chlorofluorocarbon resin	0.120	101A	100	6.2	BC	U	BT
Plastkon CTFE 2200	Allied Chemical Company	1759	Chlorofluorocarbon resin	0.220	101A	100	6.2	BC	U	BT
Plastkon CTFE 2200	Allied Chemical Company	1760	Chlorofluorocarbon resin	0.376	101A	100	6.2	SE	U	BT
Polyacrylate Compound RA-325-70A (30-180)	Non-Metallic Materials Branch, NSF/C	310		0.075	101A	100	6.2	3.2	U	U
Polycast Acrylic 101	Polycast Corporation	1863	Acrylic	0.063	101A	70	6.0	BC	U	U
Polycast Acrylic 101	Polycast Corporation	1868	Acrylic	0.063	101A	40	10.5	BC	U	U
Polycast Acrylic 101	Polycast Corporation	1875	Acrylic	0.063	101A	Alr	14.7	BC	U	U
Polycast Acrylic 101	Polycast Corporation	1878	Acrylic	0.063	101A	Alr	14.7	BC	U	U
Polycast Acrylic Type 101	Polycast Corporation	1041		0.060	101A	100	6.2	7.8	U	U
Polycast Acrylic 101	Polycast Corporation	1578	Acrylic	0.057	101A	100	6.2	BC	U	U
Polyethylene	Marshall Space Flight Center	2022	Polyimide	0.060	101B	40	10.6	BC	U	U
Polymide Box	McDonnell Douglas Corporation Eastern Division	64	Polyimide	0.85	101B	100	6.2	NI	8	8
Polymide Laminate B	McDonnell Douglas Corporation Eastern Division	65	Polyimide	0.060	101A	100	6.2	SE - 6/6"	BT	8
Polymide Laminate B	McDonnell Douglas Corporation Eastern Division							NI	8	8

SAF - Fire Test Form 16 (Rev. 10-1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Materials Rating	
								Type I	Type II
Polymer SP-1, Batch 3-467-3	E. I. du Pont de Nemours & Company	727	Polyimide	0.060	101A	100	6.2	NI	BT
Polymer SP-1	E. I. du Pont de Nemours & Company	728	Polyimide	0.125	101A	100	6.2	NI	BT
Polymer SP-1	E. I. du Pont de Nemours & Company	733	Polyimide	0.025	101A	100	6.2	NI	BT
Polymer SP-21	E. I. du Pont de Nemours & Company	731	Filled polyimide	0.125	101A	100	6.2	NI	BT
Polymer SP-21	E. I. du Pont de Nemours & Company	734	Filled polyimide	0.250	101A	100	6.2	NI	BT
Polypropylene Foam (Rigid)	Having Industries	1219	Polypropylene	0.060	101A	100	6.2	BC	U
Polypropylene Foam (Flexible)	Having Industries	1240	Polypropylene	0.080	101A	100	6.2	NC	U
Polyvinyl, Tedlar S. ABS Flame Retardant	Polyplastic United, Inc.	1245		0.014	101A	100	6.2	BC	U
Polyurethane Foam 340	Cook Paint & Varnish Company	1738	Polyurethane per ASTM D1692	1.6	Bunsen Burner	Air	14.7	SE	BT
Polyurethane	Goodyear Corporation	1873	Polyurethane	0.060	101A	Air	14.7	SE - 1 1/2"	S
Polyurethane Estane	Goodyear Corporation	1874	Polyurethane	0.060	101A	26	11.7	SE - 1 3/4"	BT
Polyurethane Estane	Goodyear Corporation	1886	Polyurethane	0.060	101A	30.0	10.9	BC	U
Polyurethane Estane	Goodyear Corporation	1886	Polyurethane	0.060	101A	28	10.9	BC	U
Porcelain Enamel, Mg-2-1 on Aluminum Foil	Marshall Space Flight Center	1635	Porcelain-Foil	0.0018	101A	100	6.2	NI	S

Source: Fire Test Data Sheet 1971

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Materials Rating	Type I	Group I
									Top Ignition	
Porcelain Enamel, M8-3 on 1 Mill Foil, 0.18 Mill Porcelain	Marshall Space Flight Center	1636	Porcelain-Foil	0.0012	101A	100	6.2	NT	S	S
Porcelain Enamel, L8-2-1 on 3 Mill Foil	Marshall Space Flight Center	1637	Porcelain-Foil	0.0046	101A	100	6.2	NT	S	S
Porcelain Enamel, L8-2-1 on 2 Mill Foil	Marshall Space Flight Center	1637	Porcelain-Foil	0.0046	101A	100	6.2	NT	S	S
Porcelain Enamel, L8-8-3 on 3 Mill Foil	Marshall Space Flight Center	1638	Porcelain-Foil	0.006	101A	100	6.2	NT	S	S
PR-1535	Product Research Corporation	1152	Polyurethane	0.090	101A	100	6.2	BC	U	U
PR-1638 Clear	Product Research Corporation	1087	Polyurethane	0.115	101A	100	6.2	27.6	U	U
PR-1638 Clear	Product Research Corporation	1085	Polyurethane	0.100	101A	100	6.2	21.0	0.67	U
PR-1527	Product Research Corporation	1181	Silicone	0.168	101A	100	6.2	BC	BC	U
Proseal 786-80	Coast Proseal Company	1089	Silicone	0.085	101A	100	6.2	BC	U	U
Proseal 786-80 (Clear)	Coast Proseal Company	1186	Silicone	0.120	101A	100	6.2	BC	BC	U
Pyrall P12501	E. I. du Pont de Nemours Co., & Inc.	1632	Polyimide-Glass Cloth	0.037	101A	100	6.2	NT	BT	BT
Pyrall, 7 Ply Laminate	E. I. du Pont de Nemours Co., & Inc.	1633	Polyimide Laminate	0.057	101A	100	6.2	NT	BT	BT

NSPC - One-Two Form 16 (Revised 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Preparation Rate Inches/Minute	Materials Rating	
								Type I	Group I
Pyralin 1632	E. I. du Pont de Nemours Co., & Inc.	1649	Polyimide	.0.038	101B	100	6.2	SE - 1/4"	BT
Pyralin 1632	E. I. du Pont de Nemours Co., & Inc.	1689	Polyimide	.0.038	101B	100	6.2	SE - 1/4"	BT
Pyralin 1633	E. I. du Pont de Nemours Co., & Inc.	1682	Polyimide	.0.058	101B	100	6.2	SE - 1/2"	BT
Pyralin 1633	E. I. du Pont de Nemours Co., & Inc.	1682	Polyimide	.0.058	101B	100	6.2	SE - 1/4"	BT
QC-20046	Dow Corning Corporation	211	Fluorosilicone	.0.058	101A	100	6.2	U	U
Raybestos 101	Raybestos Manhattan Company	1565	Filled Teflon	.0.160	101A	100	6.2	NF	BT
Raybestos 103	Raybestos Manhattan Company	1565a	Filled Teflon	.0.160	101A	100	6.2	NF	BT
Red Carpet	Sequoian, Inc.	1838	Nylon	.0.375	101A	70	6.0	BC	U
Red Wing Silicone Rubber		114	Silicone	.0.125	101B	70	10.0	BC	U
Refet, 10 Mil Thick on 1 Mil Aluminum Foil	Raybestos Manhattan Company	1688	Silicone	.0.125	101A	80	6.2	BC	U
Refet Coated Kraft Paper	Raybestos Manhattan Company	1854	Fluorocastomer Coated Paper	.0.019	101A	70	6.0	BC	U
Refet 1664 Coated Glass	Raybestos Manhattan Company	1624	Fluorocastomer	.0.017	101A	100	6.2	NF	BT
Refet L-2231, 1/4" OD Tube	Raybestos Manhattan Company	1694	Fluorocastomer		101B	70	6.2	SE - 1/16"	BT
Refet L-2203-6	Raybestos Manhattan Company	1678n	Fluorocastomer	.0.125	101B	100	6.2	NF	BT

REF. - 1000 FORM 11 (Rev. 1-1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	G.O.X. %	Flame Propagation Rate Inches/Minute	Material Rating
								Type I Group I
Refact L3203-6	Raybestos Manhattan Company	167Hi	Fluoroclastomer	0.125	101B	100	6.2	SE - 1/2"
Refact L3203-6	Raybestos Manhattan Company	1687c	Fluoroclastomer	0.125	101A	100	6.2	NI
Refact L3203-6 Soaked in FC 76	Raybestos Manhattan Company	123	Fluoroclastomer	0.086	101B	100	6.2	SE - 6"
Refact L3203-6	Raybestos Manhattan Company	1589	Fluoroclastomer	0.090	101A	100	6.2	NI
Refact L3203-6	Raybestos Manhattan Company	1588	Fluoroclastomer	0.087	101A	100	6.2	NI
Refact L3203-6	Raybestos Manhattan Company	1647	Fluoroclastomer	0.075	101A	100	6.2	NI
Refact L3203-6	Raybestos Manhattan Company	1679	Fluoroclastomer	0.068	101B	100	6.2	SE - 1"
Refact L3203-6	Raybestos Manhattan Company	1678	Fluoroclastomer	0.068	101B	100	6.2	SE - 1/4"
Refact L3203-6	Raybestos Manhattan Company	1679	Fluoroclastomer	0.068	101A	100	6.2	NI
Refact L3203-6	Raybestos Manhattan Company	1677c	Fluoroclastomer	0.032	101B	100	6.2	BC
Refact L3203-6	Raybestos Manhattan Company	1677b	Fluoroclastomer	0.032	101B	100	6.2	BC
Refact L3203-6, Style RL-3542	Raybestos Manhattan Company	4	Fluoroclastomer	0.086	101A	70	14.0	BC
Refact L3203-6, Style RL-3542	Raybestos Manhattan Company	5	Fluoroclastomer	0.086	101B	70	14.0	BC
Refact L3203-6, Style RL-3542	Raybestos Manhattan Company	1616	Fluoroclastomer	0.086	101A	100	6.2	NI
Refact L3203-6, Style RL-3542	Raybestos Manhattan Company	122	Fluoroclastomer	0.086	101B	100	6.2	SE

SAFETY TEST FORM 10 (Rev. 10-1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute			Materials Rating		
							% pete	Top Ignition	Bottom Ignition	Type I	Group I	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	26	Fluoroelastomer	0.040	101B	70	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	1835	Fluoroelastomer	0.040	101A	70	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	1774	Fluoroelastomer	0.020	101A	100	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	33	Fluoroelastomer	0.020	101A	60	10.5			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	34	Fluoroelastomer	0.020	101A	50	8.6			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	14	Fluoroelastomer	0.020	101B	70	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	27	Fluoroelastomer	0.020	101B	70	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	29	Fluoroelastomer	0.020	101A	70	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	1822	Fluoroelastomer	0.020	101A	70	6.2			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	30	Fluoroelastomer	0.020	101A	60	7.0			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	35	Fluoroelastomer	0.020	101A	30.9	12.0			BT	BT	
Refact L1203-6, Style RL-3542	Raybestos Manhattan Company	31	Fluoroelastomer	0.020	101A	60	7.0			BT	BT	

REF - Test Form 16 (Rev. 6-1951)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute	Material's Rating	Type I	Group I
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	1818	Fluoroclastomer	0.086	101B	100	6.2		BC	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	24	Fluoroclastomer	0.086	101B	70	6.2	NF	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	3	Fluoroclastomer	0.083	101A	70	14.0	BC	U	U
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	1819	Fluoroclastomer	0.063	101B	100	6.2	SE - 3"	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	1821	Fluoroclastomer	0.063	101A	100	6.2	NF	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	1778	Fluoroclastomer	0.063	101A	100	6.2	NF	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	1816	Fluoroclastomer	0.063	101A	100	6.2	NF	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	13	Fluoroclastomer	0.063	101B	70	6.2	SE - 2 1/2"	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	25	Fluoroclastomer	0.063	101B	70	6.2	NF	BT	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	1836	Fluoroclastomer	0.063	101A	70	6.2	NF	BT	BT
Refel L3202-6, Style RL-3542	Raybestos Manhattan Company	1817	Fluoroclastomer	0.040	101A	100	6.2	BC	U	BT
Refel L3203-6, Style RL-3542	Raybestos Manhattan Company	16	Fluoroclastomer	0.040	101B	70	6.2	SE - 10"	BT	BT

SAFETY FORM FORM 16 (Revised 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute		Material Rating		
							% pete	Top Ignition	Bottom Ignition	Type I	Group I
Refel L-3203-6, Style RL-3542	Raybestos Manhattan Company	32	Fluoroclastomer	0.020	101A	40	7.0		NI	BT	BT
Refel L-3217	Raybestos Manhattan Company	1620	Fluoroclastomer	0.092	101A	100	6.2		SE - 1/2"	BT	BT
Refel L-3217	Raybestos Manhattan Company	1601	Fluoroclastomer	0.092	101A	100	6.2		SE - 1/2"	BT	BT
Refel L-3217	Raybestos Manhattan Company	1653	Fluoroclastomer	0.072	101B	100	6.2		BC	U	U
Refel L-3217-1	Raybestos Manhattan Company	1676	Fluoroclastomer	0.060	101B	100	6.2		BC	U	U
Refel L-3217-1	Raybestos Manhattan Company	1676	Fluoroclastomer	0.060	101B	100	6.2		BC	U	U
Refel L-3222-2	Raybestos Manhattan Company	1576	Fluoroclastomer	0.062	101A	100	6.2		NI	BT	BT
Refel 3222-2	Raybestos Manhattan Company	1585	Fluoroclastomer	0.062	101B	100	6.2		SE - 2"	BT	BT
Refel L-3236, Style RL-3764-1	Raybestos Manhattan Company	1744	Fluorinated Silicone Elastomer	0.090	101B	100	10.0		BC	U	U
Refel L-3236, Style RL-3764-1	Raybestos Manhattan Company	1	Fluorinated Silicone Elastomer	0.090	101B	70	14.0		BC	BT	BT
Refel L-3236, Style RL-3764-1	Raybestos Manhattan Company	8	Fluorinated Silicone Elastomer	0.085	101B	70	14.0		BC	BT	BT
Refel L-3236, Style RL-3764-1	Raybestos Manhattan Company	7	Fluorinated Silicone Elastomer	0.085	101B	70	14.0		NI	BT	BT
Refel L-3236, Style RL-3764-1	Raybestos Manhattan Company	1721	Fluorinated Silicone Elastomer	0.085	101B	100	6.2		NI	BT	BT
Refel L-3236, Style RL-3764-1	Raybestos Manhattan Company	1721	Fluorinated Silicone Elastomer	0.085	101A	100	6.2		NI	BT	BT

NI = Non Flammable

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	COX	Flame Propagation Rate Inches/Minute	Material Rating	Type I	Group I
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	20	Fluorinated Silicone Elastomer	0.085	101B	70	6.0	Top Ignition	BT	BT
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	71	Fluorinated Silicone Elastomer	0.085	101B	70	6.0	Bottom Ignition	SE - 2.1"	BT
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	72	Fluorinated Silicone Elastomer	0.085	101B	60	7.0	SE - 6"	BT	BT
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	73	Fluorinated Silicone Elastomer	0.085	101B	60	7.0	NI	BT	BT
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	74	Fluorinated Silicone Elastomer	0.085	101B	60	8.6	NI	BT	BT
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	75	Fluorinated Silicone Elastomer	0.085	101B	40	7.0	NI	BT	BT
Refest L3236, Style RL-3764-1	Raybestos Manhattan Company	1745	Fluorinated Silicone Elastomer	0.084	101B	100	10.0	BC	U	U
Refest L3236, Style RL-3764	Raybestos Manhattan Company	9	Fluorinated Silicone Elastomer	0.084	101A	70	14.0	NI	BT	BT
Refest L3236, Style RL-3764	Raybestos Manhattan Company	2	Fluorinated Silicone Elastomer	0.080	101A	70	14.0	BC	U	U
Refest L3236, Style RL-3764	Raybestos Manhattan Company	1716	Fluorinated Silicone Elastomer	0.080	101B	100	6.2	NI	BT	BT
Refest L3236, Style RL-3764	Raybestos Manhattan Company	1716	Fluorinated Silicone Elastomer	0.080	101A	100	6.2	NI	BT	BT
Refest L3236, Style RL-3764	Raybestos Manhattan Company	1716	Fluorinated Silicone Elastomer	0.080	101A	100	6.2	BC	BT	BT

NOTE - Time from flame to 10% (standard) loss

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	pala	Flame Propagation Rate Inches/Minute	Bottom Ignition	Type I	Materials Rating	Group I
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	1570	Fluorinated Silicone Elastomer	0.060	101A	100	6.2		NI	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	1712	Fluorinated Silicone Elastomer	0.060	101B	100	6.2		NI	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	12	Fluorinated Silicone Elastomer	0.060	101B	70	6.2		SE	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	54	Fluorinated Silicone Elastomer	0.060	101B	70	6.2		SE - 7 1/4"	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	63	Fluorinated Silicone Elastomer	0.060	101B	70	6.2		SE	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	66	Fluorinated Silicone Elastomer	0.060	101B	70	6.2		SE - 6 3/4"	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	23	Fluorinated Silicone Elastomer	0.060	101B	70	6.2		SE - 10"	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	67	Fluorinated Silicone Elastomer	0.060	101B	40	10.5		SE - 6 3/4"	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	53	Fluorinated Silicone Elastomer	0.060	101B	20	11.7		BC	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	52	Fluorinated Silicone Elastomer	0.060	101B	Air	14.0		NI	BT	BT	BT
Refel L-2236, Style RL-3764	Invibrite Manhattan Company	21	Fluorinated Silicone Elastomer	0.060	101B	:30	6.0		SE - 2 1/8"	BT	BT	BT
Refel L-2236, Style RL-3764-2	Raybestos Manhattan Company	1713	Fluorinated Silicone Elastomer	0.047	101A	100	6.2		BC	BT	BT	BT
Refel L-2236, Style RL-3764-2	Raybestos Manhattan Company	1712	Fluorinated Silicone Elastomer	0.047	101B	100	6.2		NI	BT	BT	BT
Refel L-2236, Style RL-3764-1	Raybestos Manhattan Company	10	Fluorinated Silicone Elastomer	0.047	101A	70	14.0		NI	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	51	Fluorinated Silicone Elastomer	0.047	101A	70	6.2		NI	BT	BT	BT
Refel L-2236, Style RL-3764	Invibrite Manhattan Company	22	Fluorinated Silicone Elastomer	0.047	101B	70	6.2		SE - 10"	BT	BT	BT
Refel L-2236, Style RL-3764	Raybestos Manhattan Company	59	Fluorinated Silicone Elastomer	0.047	101B	60	7.0		SE - 1/4"	BT	BT	BT

REF. - 100 FORM 10 (Rev. 10-1970)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute		Materials Rating	
							Type I	Type I Group I		
Refest L3236, Style RL-3764	Raybestos Manhattan Company	49	Fluorinated Silicone Elastomer	0.047	101B	30.5	11.7		BC	BT
Refest L3236	Raybestos Manhattan Company	61	Fluorinated Silicone Elastomer	0.047	101B	26	11.7		SE	BT
Refest L3236	Raybestos Manhattan Company	62	Fluorinated Silicone Elastomer	0.047	101B	26	11.7		BC	BT
Refest L3236, Style RL-3764	Raybestos Manhattan Company	60	Fluorinated Silicone Elastomer	0.047	101B	26	11.7		BC	BT
Refest L3236, Style RL-3764	Raybestos Manhattan Company	50	Fluorinated Silicone Elastomer	0.047	101B	21	10.5	SE = 2.1/2*	BT	BT
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	1715	Fluorinated Silicone Elastomer	0.020	101B	100	6.2		BC	U
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	56	Fluorinated Silicone Plastomer	0.020	101B	60	7.0		BC	U
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	39	Fluorinated Silicone Plastomer	0.020	101A	70	6.0		BC	U
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	40	Fluorinated Silicone Plastomer	0.020	101A	60	7.0		BC	U
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	42	Fluorinated Silicone Elastomer	0.020	101A	60	7.0		BC	U
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	44	Fluorinated Silicone Elastomer	0.020	101B	40	10.5		BC	U
Refest L3236, Style RL-3764-3	Raybestos Manhattan Company	43	Fluorinated Silicone Elastomer	0.020	101A	60	7.0		BC	U

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Material Rating	
						% petia	Top Ignition	Bottom Ignition	Type I	Group I	
Refet L3236, Style RL-3764-3	Raybestos Manhattan Company	46	Fluorinated Silicone Elastomer	0.020	101B	31.7	11.7	BC	U	U	
Refet L3236, Style RL-3764-3	Raybestos Manhattan Company	47	Fluorinated Silicone Elastomer	0.020	101B	30.5	10.9	BC	U	U	
Refet L3236, Style RL-3764-3	Raybestos Manhattan Company	45	Fluorinated Silicone Elastomer	0.020	101A	30.9	10.0	BC	U	U	
Refet L3236, Style RL-3764-3	Raybestos Manhattan Company	46	Fluorinated Silicone Elastomer	0.020	101B	Air	14.0	SE	BT	BT	
RL 3251	Raybestos Manhattan Company	1571	Fluoroclastomer	0.062	101A	100	6.2	SE - 3/g*	BT	BT	
RL 332 Fluor	Raybestos Manhattan Company	1569	Fluoroclastomer	0.065	101A	100	6.2	BC	U	U	
RL 3419 Fluor Coated Beta Fabric	Raybestos Manhattan Company	1567	Fluoroclastomer	0.069	101A	96	6.2	NI	BT	BT	
RL 3633 Beta Fabric	Raybestos Manhattan Company	1933	Fluoroclastomer	0.026	101B	70	6.2	SE - 1 1/2"	BT	BT	
Refet 3469	Raybestos Manhattan Company	1716	Fluor Coated Beta Fabric	0.020	101B	100	6.2	BC	BT	BT	
Refet 3469	Raybestos Manhattan Company	1717	Fluor Coated Beta Fabric	0.020	101A	100	6.2	NI	BT	BT	
Refet 3468, Style 16316	Raybestos Manhattan Company	1634	Fluor Coated Beta Fabric	0.007	101A	100	6.2	NI	BT	BT	
Refet 3468	Raybestos Manhattan Company	1645	Fluor Coated Beta Fabric	0.007	101A	100	6.2	NI	BT	BT	
Refet 3469	Raybestos Manhattan Company	1640	Fluor Coated Beta Fabric	0.008	101B	100	6.2	SE	BT	BT	

NI = Non Ignitable (November 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Materials Rating	
						% psi	Top Ignition	Bottom Ignition	Type I	Type I Group I	
Refel RL-3550 on 1 mil Aluminum Foil	Raybestos Manhattan Company	111	Caulking Compound	0.006	101B	100	6.2		NI	BT	BT
RL 3550 over DC-3146 and EC-1663	Raybestos Manhattan Company	2037	Fluoroclastomer over Silicone		101B	100	6.0		NF	BT	BT
Refel L-3683-1	Raybestos Manhattan Company	1881	Fluoroclastomer Pigmented Blue	0.006	101A	70	6.2		NF	BT	BT
Refel L-3683-1	Raybestos Manhattan Company	1886	Fluoroclastomer Pigmented Blue	0.006	101B	70	6.2		NF	BT	BT
Refel L-3683-2	Raybestos Manhattan Company	1882	Fluoroclastomer Pigmented Orange	0.006	101B	70	6.2		NF	BT	BT
Refel L-3683-2	Raybestos Manhattan Company	1883	Fluoroclastomer Pigmented Orange	0.006	101A	70	6.2		NF	BT	BT
Refel L-3683-3	Raybestos Manhattan Company	1880	Fluoroclastomer Pigmented Red	0.006	101A	70	6.2		NF	BT	BT
Refel L-3683-3	Raybestos Manhattan Company	1884	Fluoroclastomer Pigmented Red	0.006	101B	70	6.2		NF	BT	BT
Regalite 246	Tenneco PolyGlass Company		Vinyl	0.040	101B	Air	14.0		SE - 2*	S	S
Rex Asbestos K-210 25	Manned Spacecraft Center	2062	Asbestos	0.500	101B	100	6.2		SE - 4*	BT	S
Rex Asbestos K-26	Manned Spacecraft Center	2063	Asbestos	0.750	101B	100	6.2		NF	BT	S
RM, Style 581	Raybestos Manhattan Company	1237	Filled Teflon	0.250	101A	100	6.2		NF	BT	S
RM Teflon, Type 584	Raybestos Manhattan Company	1236	Filled Teflon	0.250	101A	100	6.2		NF	BT	BT
Regolite R-64-61-60	M. S. Rubber Company	1246		0.015	101A	100	6.2	BC	U	U	U

NSPC - New Test Form 10 (Rev. 1-61)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX %	Flame Propagation Rate Inches/Minute	Material Rating				
								% Penta	Top Ignition	Bottom Ignition	Type I	Group I
RTV-90 Coated w/25 MIL Reflex L-3203-6	General Electric Company	1457	Silicone	0.325	101A	70	6.0			NI	BT	BT
RTV-90	General Electric Company	520	Silicone	0.017	101A	100	6.2	12.6	BC - 64.0	U	U	
RTV-90	General Electric Company	449	Silicone	0.091	101A	100	6.2	3.1	BC - 7.2	U	U	
Red Rubber, Type TA-405	MSFC	1036	Stock No. 9320-99690316	0.063	101A	100	6.2	3.8	-	U	U	
RL-2060 Fluorl Sponge	Raybestos Manhattan Company	428	Fluorocarbon Base	1.09	101A	100	6.2	6.6	16.0	U	U	
RL-3203-6 Compound	Raybestos Manhattan Company	809		0.065	101A	100	6.2	-	NI	BT	BT	
RL-3203-6 Compound	Raybestos Manhattan Company	933		0.065	101A	100	6.2	-	NI	BT	BT	
RL-3203-6 Compound	Raybestos Manhattan Company	937		0.030	101A	100	6.2	-	NI	BT	BT	
RL-3203-6 Adhesive	Raybestos Manhattan Company	1174	Applied to 1-mil Aluminum foil	0.005	101A	100	6.2	-	NI	BT	BT	
RL-3492 Conformal Coating	Raybestos Manhattan Company	1168	Applied to 1-mil Aluminum foil	0.013	101A	100	6.2	-	NI	BT	BT	
RL-3490 Sealant	Haybenton Manhattan Company	1161	Applied to 1-mil Aluminum foil	0.014	101A	100	6.2	-	NI	BT	BT	
RTV-90	General Electric Company	656	Silicone	0.044	101A	100	6.2	6.4	BC - 24.6	U	U	
RTV-90	General Electric Company	712	Silicone	0.005	101A	100	6.2	-	BC - 60.0	U	U	
RTV-90	General Electric Company	708	Silicone	0.010	101A	100	6.2	18.6	BC - 46.2	U	U	
Rusco B1096		1730		0.045	101A	70	6.2		BC	U	U	

NSRC - One Time Form 16 (Rev. 10-61)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	COX		Flame Propagation Rate Inches/Minute	Material Rating
						%	psi		
Schne Morehead No. 5144		2059		0.075	101A	100	6.2		
Schneller Aerfilm	John Schneller Associates	1247		0.015	101A	100	6.2	BC	U U
Schneller Aerfilm	John Schneller Associates	1248		0.016	101A	100	6.2	BC	U U
Scotchemet XR5038	Minnesota Mining & Mfg. Co.	11192		0.126	101A	70	6.2	BC	U U
S-II Insulation Composite	North American Rockwell Space Div.	521	Honeycomb-polyurethane composite	1.75	101A	100	6.2	62.4	— U U
Silicone Rubber, Compound RA-317-ROS1	Non-Metallic Materials Branch, MSFC	401	Silicone	0.075	101A	100	6.2	2.1	— U U
Silicone Rubber, Compound RA-377-30SI	Non-Metallic Materials Branch, MSFC	358	Silicone	0.065	101A	100	6.2	6.0	BC - 10.8 U U
Silicone Rubber, Compound RA-428-70SI	Non-Metallic Materials Branch, MSFC	288	Silicone	0.077	101A	100	6.2	2.4	— U U
Silicone Rubber, Compound SE-517	General Electric Company	705	Silicone	0.070	101A	100	6.2	3.9	— U U
Sodium Silicate-Refined Insulation	Non-Metallic Materials Branch, MSFC	546		1.32	101A	100	6.2	NI	BT BT
Scotchemet XR5038 Coated w/12 MIL Reflec Lr-305-4	Minnesota Mining & Mfg. Co.	1856		0.250	101A	70	6.2	BC	U U
Spex VHT w/Enamel on 15 MIL Aluminum	Spex Company	1897	Protective Coating	0.060	101B	70	6.2	NI	BT BT
Spex VHT w/Enamel on 3 MIL Foil	Spex Company	1898	Protective Coating	0.004	101B	70	6.2	NI	S S

NOTE - This Form Form 10 (Rev. 10-1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Aeromarine, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute		Type I	Materials Rating
							% Pen	Top Ignition	Bottom Ignition	
Stainless Steel (300 Series)	Marshall Space Flight Center		Stainless Steel	0.002	101A	100	6.2		NI	BT
Standard Paper (Thermotropic)	NRC Manufacturing Company	2051		0.101	101A	100	6.2		RC	U
Steel Wool (Degreased)										U
STVR Lacing Tape, Viton Coated Beta Fabric	Bentley Harris	1891	Steel Wool	—	101A	70	6.2		BC	U
SRGA 0313 Fabric	Minnesota Mining & Mfg. Co.	1846	Viton	0.003	101A	70	6.2		NI	BT
Statcom AA-1802	Dayton Rubber Company	578	Aluminum face sheet, silicone rubber	0.012	101A	100	6.2	9.0	BC - 49.8	U
Stillman Compound TH-1068	Stillman Rubber Company	395	Polyurethane	1.03	101A	100	6.2	225.0	—	U
Stycast 1090	Emerson & Cuming Company	752	Silicone O-ring, 1/4" diameter	—	101A	100	6.2	59.4	—	U
Stycast 1090 Black	Emerson & Cuming Company	568	Epoxy	0.045	101A	100	6.2	10.2	BC - 60.2	U
Stycast 2850 GT	Emerson & Cuming Company	1076	Epoxy	0.129	101A	100	6.2	6.6	BC - 17.4	U
Stycast 1090 Coated w/Reflet, 34 Mil	Emerson & Cuming Company	574	Epoxy	0.060	101A	100	6.2	3.1	BC - 24.0	U
Stycast 1090 Coated w/11 Mil Aluminum Plasma Spray	Emerson & Cuming Company	1850	Epoxy Casting Compound	0.3125	101A	70	6.2		SE - 3/4"	BT
Sylgard 186	Emerson & Cuming Company	1860	Epoxy Casting Compound	0.25	101A	70	6.2		NI	8
Sylgard 3651B w/Reflet Coat, 35 Mil	Emerson & Cuming Company	1853	Epoxy Casting Compound	0.256	101A	70	6.2		SE - 1/2"	BT
Sylgard 182	Dow Chemical Company	1186	Silicone Electrical Insulation	0.100	101A	100	6.2		BC	U

NOTE - One Test Form is (maximum) 10"

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.,	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inches)	Ignitor	GOX	Flame Propagation Rate Inches/Minute	Material's Rating
				%	psia	Top Ignition	Bottom Ignition	Type I Group I
Sylgard 187	Dow Chemical Company	1610	Silicone Electrical Insulation	0.500	101A	100	6.2	BC U U
Tedlar 200 AM-30WH	E. I. du Pont de Nemours & Co.	419	Polyvinyl Fluoride	0.002	101A	100	6.2	— U U
Tedlar 200 BG-30WH	E. I. du Pont de Nemours & Co.	415	Polyvinyl Fluoride	0.002	101A	100	6.2	BC - 16.8 U U
Teflon FEP	E. I. du Pont de Nemours & Co.	976		0.005	101A	100	6.2	BC - 19.8 U U
Teflon FEP	E. I. du Pont de Nemours & Co.	986		0.005	101A	100	6.2	SE BC - 18.6 U U
Teflon FEP	E. I. du Pont de Nemours & Co.	987		0.001	101A	100	6.2	NI BC - 102.0 U U
Teflon (TFE) Coated Nemco 98-101	E. I. du Pont de Nemours & Co.	716		0.010	101A	100	6.2	SE BC - 10.2 U U
Teflon F60A-8108, Copper clad (one side)	Dodge Industries	1557	Teflon-glass laminate	0.034	101A	100	6.2	NI S S
Teflon Coated Aluminum Foil, 3 MIL	Mitsubishi Mining & Mfg. Co.	1578	Teflon Bonded to Foil	0.012	101A	100	6.2	NI S S
Teflon Coated Aluminum Foil	McDonnell Douglas Corp., Western Division	1659	Teflon Bonded to Foil	0.006	101A	100	6.2	NI S S
Teflon, Yellow, 2 MIL on 3 MIL Aluminum Foil	McDonnell Douglas Corp., Western Division	1688	Teflon	0.002	101B	100	6.2	NI S S
Teflon, Yellow, 2 MIL on 3 MIL Aluminum Foil	McDonnell Douglas Corp., Western Division	1688	Teflon	0.002	101B	100	6.2	NI S S
Teflon Coated Beta Cloth Armaloy 85-049	E. I. du Pont de Nemours & Co.	1597	Teflon/Beta Cloth	0.008	101A	100	6.2	NI S S
Teflon Coated Beta Yarn Y44848	Owens Corning	1220	Teflon plus Yarn	0.006	101A	100	6.2	NI BT BT

NSPC - One Test Form 10 (Rev. October 1971)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	COX		Flame Propagation Rate Inches/Minute	Material Rating	Type I	Group I
						%	psia				
Teflon Coated Adel Clamp P/N 457		1403	Teflon Coat	—	101B	100	6.2		NI	BT	BT
Teflon Film MDSE-1029	GAF Corporation	1795	Teflon w/Felt	0.050	101A	100	6.2		NI	BT	BT
Teflon FEP	E. I. du Pont de Nemours & Co.	1653	Fluorinated Ethylene Propylene	0.500	101A	70	6.2	SE - 1/2"	BT	BT	BT
Teflon FEP	E. I. du Pont de Nemours & Co.	1692	Fluorinated Ethylene Propylene	0.250	101B	100	6.2	SE - 1/16"	BT	BT	BT
Teflon FEP	E. I. du Pont de Nemours & Co., U.S.A.	1704	Fluorinated Ethylene Propylene	0.250	101A	70	6.2	SE - 1/8"	BT	BT	BT
Teflon FEP	E. I. du Pont de Nemours & Co.	1692	Fluorinated Ethylene Propylene	0.250	101B	100	6.2	SE - 1/16"	BT	BT	BT
Teflon FEP	E. I. du Pont de Nemours & Co.	1707	Fluorinated Ethylene Propylene	0.265	101A	70	6.2	SE - 1/R"	BT	BT	BT
Teflon FEP	E. I. du Pont de Nemours & Co.	1889	Fluorinated Ethylene Propylene	0.005	101A	70	6.2		NI	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1691	Tetrafluoroethylene Resin	0.312	101B	100	6.2	SE - 1/4"	BT	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1650	Tetrafluoroethylene Resin	0.312	101A	100	6.2	SE - 1/2"	BT	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1691	Tetrafluoroethylene Resin	0.312	101B	100	6.2		NI	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1618	Tetrafluoroethylene Resin	0.275	101A	100	6.2	SE - 2"	BT	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1649	Tetrafluoroethylene Resin	0.265	101A	100	6.2	SE - 3 1/2"	BT	BT	BT

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TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Igitor	GOX %	Flame Propagation Rate Inches/Minute	Bottom Ignition	Top Ignition	Materials Rating	Type I	Group I
Teflon TFE	E. I. du Pont de Nemours & Co.	1690	Tetrafluoroethylene Resin	0.250	101B	100	6.2			NI	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1617	Tetrafluoroethylene Resin	0.200	101A	100	6.2			BC	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1616	Tetrafluoroethylene Resin	0.125	101A	100	6.2			BC	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1612	Tetrafluoroethylene Resin	0.062	101B	100	6.2			BC	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1113	Tetrafluoroethylene Resin	0.062	101A	30	10.0			SE - 1 1/16"	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1709	Tetrafluoroethylene Resin	0.060	101A	100	6.2			NI	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1611	Tetrafluoroethylene Resin	0.032	101A	100	6.2			BC	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	2H	Tetrafluoroethylene Resin	0.032	101B	70	6.0			SE - 9 3/4"	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	69	Tetrafluoroethylene Resin	0.032	101B	70	6.0			BC	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1615	Tetrafluoroethylene Resin	0.030	101A	100	6.2			BC	U	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	1690	Tetrafluoroethylene Resin	0.025	101B	100	6.2			NI	BT	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	37	Tetrafluoroethylene Resin	0.010	101B	70	6.0			SE - 10"	U	BT

MF - Min. Flame Prop. 15 minutes (100)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute	Materials Rating
						% p/a	Top Ignition		
Teflon TFE	E. I. du Pont de Nemours & Co.	68	Tetrafluoroethylene Resin	0.010	101B	100	6.0	SE - 4 1/2"	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	18	Tetrafluoroethylene Resin	0.010	101B	70	6.0	SE - 4 1/2"	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	36	Tetrafluoroethylene Resin	0.005	101B	70	6.0	SE - 10"	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	19	Tetrafluoroethylene Resin	0.005	101B	70	6.0	SE - 10"	BT
Teflon TFE	E. I. du Pont de Nemours & Co.	115	Tetrafluoroethylene Resin	0.005	101B	70	10	N1	BT
Teflon TFE Coated X400 Fabric	Dodge Industries	1440	Teflon w/Fabric	0.012	101A	70	6.2	BC	U
Tenneco Polyglass	Tenneco Company	1657	Methacrylate	0.040	Burner Burner	Air	14.7	SE - 1"	U
Tenite I	Eastman Organic Chemicals Co.	576	Cellulose Acetate	0.005	101A	100	6.2	—	BC - 22.2
Tenite I	Eastman Organic Chemicals Co.	606	Cellulose Acetate	0.010	101A	100	6.2	42.6	U
Tenite I	Eastman Organic Chemicals Co.	601	Cellulose Acetate	0.020	101A	100	6.2	26.4	U
Tenite I	Eastman Organic Chemicals Co.	600	Cellulose Acetate	0.030	101A	100	6.2	18.0	U
Tenite I	Eastman Organic Chemicals Co.	696	Cellulose Acetate	0.040	101A	100	6.2	16.8	U
Tenite I	Eastman Organic Chemicals Co.	592	Cellulose Acetate	0.050	101A	100	6.2	16.2	U
Tenite I	Eastman Organic Chemicals Co.	649	Cellulose Acetate	0.060	101A	100	6.2	14.4	U

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TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	COX	Flame Propagation Rate Inches/Minute	Bottom Ignition	Type I	Materials Rating
				%	psia	Top Ignition			Type I	Group I
Trevaro F-130 Tubing 326 Silicone, Coated w/RL-3788	Coast Manufacturing Company	1895	Silicone plus Fluor elastomer		101B	70	6.2		BC	U U
Trevaro F-154 Epoxy- Glass Laminate	Coast Manufacturing Company	1758	Epoxy-Glass Laminate	0.500	Burner Burner	Air	14.7		NI	S S
Urethane Compound, RA 733-710	Non-Metallic Materials Branch, MSFC	398		0.080	101A	100	6.2	33.6	BC - 5.0	U U
Velcro Hook Tape H-549 Polyester-Fluor Backing	Velcro Corporation	1592	Polyester w/ Fluor elastomer	0.075	101A	96	6.2		SE - 1 1/2"	U
Velcro Hook, HI Grade Stainless Steel	Velcro Corporation	1593	Stainless Steel	0.085	101A	100	6.2		BC	U U
Velcro Pile, HI Grade Stainless Steel	Velcro Corporation	1594	Stainless Steel	0.065	101A	100	6.2		BC	U U
Velcro H1506 Polyester Hook, Beta Ground Fluor Backing	Velcro Corporation	1210	Polyester w/ Fluor elastomer	0.068	101A	100	6.2		BC	U U
Velcro Pile Tape Hook 62-H572	Velcro Corporation	1771	Tape	0.063	101A	100	6.2		NI	BT BT
Velcro Pile Tape Hook 62-H572	Velcro Corporation	1772	Tape	0.063	101B	100	6.2		SE - 2 1/2"	U
Velcro Hook Tape BH-549	Velcro Corporation	1773	Tape	0.060	101B	100	6.2		BC	U U
Velcro Etched TFE Pile Beta Ground Fluor Backed PS9	Velcro Corporation	1213	Teflon-Fluor elastomer	0.100	101A	100	6.2		NI	BT BT
Velcro Pile Tape PS7	Velcro Corporation	1762	Tape	0.126	101A	96	6.2		BC	U U

NOTE - Time from 10% Burn-through = 1000

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate Inches/Minute		Materials Rating	
						% pete	% pete	Top Ignition	Bottom Ignition	Type I	Group I
Tenite I	Eastman Organic Chemicals Co.	586	Cellulose Acetate	0.080	101A	100	6.2	16.2	—	U	U
Tenite II	Eastman Organic Chemicals Co.	790	Cellulose butyrate	0.006	101A	100	6.2	96.0	—	U	U
Tenite II	Eastman Organic Chemicals Co.	747	Cellulose butyrate	0.010	101A	100	6.2	60.0	—	U	U
Tenite II	Eastman Organic Chemicals Co.	785	Cellulose butyrate	0.020	101A	100	6.2	40.2	—	U	U
Tenite II	Eastman Organic Chemicals Co.	784	Cellulose butyrate	0.030	101A	100	6.2	43.8	—	U	U
Tenite II	Eastman Organic Chemicals Co.	781	Cellulose butyrate	0.040	101A	100	6.2	24.0	—	U	U
Tenite II	Eastman Organic Chemicals Co.	779	Cellulose butyrate	0.050	101A	100	6.2	35.4	—	U	U
Tenite II	Eastman Organic Chemicals Co.	777	Cellulose butyrate	0.060	101A	100	6.2	31.2	—	U	U
Tenite II	Eastman Organic Chemicals Co.	776	Cellulose butyrate	0.080	101A	100	6.2	24.0	—	U	U
Tenite II	Eastman Organic Chemicals Co.	773	Cellulose butyrate	0.125	101A	100	6.2	15.6	—	U	U
Tenite II	Eastman Organic Chemicals Co.	771	Cellulose butyrate	0.250	101A	100	6.2	9.6	—	U	U
Thermofit Host Elastek TFF-R	Thermofit Raylind Tube*, International	518	—	0.004	101A	100	6.2	—	18.6*	U	U
Thokol Rubber, Compound RA-318-70T	Non-Metallic Materials Branch, MSFC	402	—	0.080	101A	100	6.2	4.8	—	U	U
Ti-6Al-4V	Marshall Space Flight Center	217	Titanium Alloy	0.020	101B	100	6.2	—	NI	1	1
TI-6Al-2, 585	Marshall Space Flight Center	216	Titanium Alloy	0.010	101B	100	6.2	—	NI	1	1

IPC - 1968 Test Form 16 (Rev. 10-1968) 1971

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Continued)

Material Description, Assembly, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX	Flame Propagation Rate Inches/Minute	Bottom Ignition	Top Ignition	Material Rating
						%	psia			Type I
Wire Screen		1945	Stainless	0.015	101A	70	6.0		NI	S S
Wire Screen		1946	Stainless	0.015	101B	70	6.0		NI	S S
X-389-1	Dodge Industries	2055	Teflon-Fiberglass	0.018	101A	100	6.2	BC	U U	
X-4184 Beta Fabric Woven w/Teflon Coated Yarn	Owens-Corning Fiberglas	139	Teflon-Fiberglass	0.020	101A	100	6.2	NI	BT	BT
Zinc Chromate Primer 605-15 on 3 Mil Foil	Smith Alstop	1809	Zinc Chromate Primer	0.0003	101A	100	6.2	BC	U U	
Zinc Chromate Primer 605-15 on 15 Mil Foil	Smith Alstop	1811	Zinc Chromate Primer	0.0066	101B	100	6.2	NI	S S	
Zinc Chromate Primer 605-15 on 30 Mil Foil	Smith Alstop	1813	Zinc Chromate Primer	0.0003	101B	100	6.2	NI	S S	
Zinc Chromate Primer 605-15 on 30 Mil Foil	Smith Alstop	1812	Zinc Chromate Primer	0.0003	101A	100	6.2	NI	S S	
Zinc Chromate Primer	Gilders Paint Company	870	Applied to aluminum foil, MIL-P-4585A	0.005	101A	100	6.2	33.6	U U	
White Top Coat Over Zinc Chromate	Warren Paint Company	871	On 1-mil aluminum foil, MIL-E-5556A	0.005	101A	100	6.2	13.6	U U	

NSPC - One Form Form 16 (Rev. 6-61)

TABLE I. FLAMMABILITY OF PLASTICS, ELASTOMERS, COATINGS,
FABRICS, AND OTHER SHEET MATERIALS (Concluded)

Material Description, Assemblage, Etc.	Manufacturer or Source	Test No.	Composition and/or Remarks	Thickness (Inch)	Ignitor	GOX		Flame Propagation Rate		Material Rating	
						% psi _a	psi _a	Top Ignition	Bottom Ignition	Type I	Group I
Viton Compound RA-344-70VA	Non-Metallic Materials Branch, MSFC	355	Silicone	0.070	101A	100	6.2	0.24	5.0	U	U
Wright SU No. 863	F. B. Wright Company	346	Silicone	0.070	101A	100	6.2	6.4	12.0	U	U
Vinycel	Johns Manville Corporation	1648	Vinyl	1.032	101A	100	6.2		BC	U	U
Vinycel Foam	Johns Manville Corporation	1662	Vinyl	1.000	Bunsen Burner	Air	14.7		SE - 2 ^a	S	S
Viton 238-12-1	E. I. du Pont de Nemours & Co.	1730	Fluoroclastomer	0.085	101A	100	6.2			NI	BT
Viton 238-12-1	E. I. du Pont de Nemours & Co.	1731	Fluoroclastomer	0.085	101B	100	6.2		BC	U	BT
Viton 238-12-1	E. I. du Pont de Nemours & Co.	1732	Fluoroclastomer	0.085	101B	100	6.2		SE - 1/3 ^a	U	BT
Viton 238-26-1	E. I. du Pont de Nemours & Co.	1727	Fluoroclastomer	0.075	101A	100	6.2			NI	BT
Viton 238-26-1	E. I. du Pont de Nemours & Co.	1727	Fluoroclastomer	0.075	101B	100	6.2		BC	U	BT
Viton 238-26-1	E. I. du Pont de Nemours & Co.	1727	Fluoroclastomer	0.075	101B	100	6.2		BC	U	BT
Martin-Marietta Corporation		1786	Fluoroclastomer	0.075	101B	100	6.2		BC	U	BT
Viton A	E. I. du Pont de Nemours & Co.	1896	Fluoroclastomer	0.060	101A	70	6.0		BC	U	U
Wakefield 148 Heat Transfer Compound	Wakefield Corporation	1871		0.017	101A	70	6.0		BC	U	U
Weblon 44	Wakefield Corporation	1619	Vinyl	0.017	Bunsen Burner	Air	14.7		SE - 1 ^a	S	S
Weblon 44	Wakefield Corporation	1658	Vinyl	0.040	Bunsen Burner	Air	14.7		NI	S	S

IPC - Dine Test Form 11 (Revised 1971)

TABLE II. FLAMMABILITY OF WIRE HARNESSSES, CONNECTORS, AND POTTING COMPOUNDS

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AMP/CM REMARKS	SAMPLE WEIGHT, GRAMS	I. GEM/ PSIA	COMBUSTION PRESSURE, PSIA	IGNITION CONDITIONS		RESULTS	TYPE I GROUP I	MATERIALS TESTED
							OVERTLOAD CURRENT AMPS	IGNITION TIME (SEC.)			
American Super Temperature Wire	American Super Temperature Wire Co.	30	4.2/ 6.0	20	AMC	40-45	75-96	0.1-0.2	SE 4"	U	U
American Super Temperature Wire AST 5400 Type E (Dark Green)	American Super Temperature Wire Co.	24A	98/ 6.2	20	AMC	40-45	74-79	30-35	0.3	SE 4"	U
Bentley-Harris Sleeving Tape 65 UAA Mat. Co., (Braided) Coated w/Refec	Bentley-Harris Co.	116	70/ 6.2	20	AMC	40-45	67	168	-	BT	BT
CORONW (Polyimide)	PPP Corporation	44A	98/ 6.2	20	AMC	40-50	79-98	52-5	0.2	SE 4"	U
CONDORINA (Polyimide) Teflon PEP Conductor Shielded	PPP Corporation	45	98/ 6.2	20	AMC	40-45	83-136	58-18	0.1-0.2	SE 8"	U
Cable, TTF, Fiberglass Overcoat	McDonnell-Douglas Corp.	34A	98/ 6.2	18	AMC	60-70	188	6	0.2	SE 4"	U
Cable, Triaxial Connector DANA-158	Raychem Corp.	1936	70/ 6.2	Silicone					-	BT	BT
Coast Pro Seal 796-80 Connector Clamton 6314	111 Cannon Electrical, Inc.	167	98/ 6.2	10A		25-50	195-306	93-162	1.0	BC	U
Coast Pro Seal 796-80 NL-3530 Coated Electrical Insulated Cordage (Teflon) (Light Green)	2	2	95/ 6.2			60-75	7 min.	-	-	BC	U
Electric Radio Automotive Cable and Cordage (Light Green)	25	16	98/ 6.2			40-55	60-190	3 min.	0.5	BC	U
Electric Radio Automotive Cable and Cordage Company	28A										
Electric Radio Automotive Cable and Cordage (Light Green)	29		98/ 6.0			20	AMC	40-45	72-89	20-45	0.3
Electric Radio Automotive Cable and Cordage Company								20	AMC	40-45	70-82
Electric Radio Automotive Cable and Cordage (Light Green)										SE	U

TABLE II. FAMMABILITY OF WIRE HARNESES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS				MATERIAL SATURATED				
					1. GOX/ PSIA	OVERLOAD CURRENT AMPS	IGNITION TIME (SEC.)	COMBUSTION PRESSURE, PSIA	IGNITION TIME (SEC.)	BURN TIME (SEC.)	TYPE I	TYPE II	GROUP I
Electric Radio Automotive Wire Cable and Cordage (Light Green)	Cerro Wire & Cable Co.	3IA	98/ 6.2	20 AMG	40-45	72	BC 8	0.1	BC	U	U	U	U
Firesone 10: 2 Conductor Shielded	Cerro Wire & Cable Co.	65	98/ 6.2	22 AMG	25-65	480		12		SE 3	U		
Firesone 101	Cerro Wire & Cable Co.	66	98/ 6.2	22 AMG	25			0.2		SE 3	U	U	U
Firesone 101	Cerro Wire & Cable Co.	141	98/ 6.2	16 AMG	100-100	33-35		9-16	0.3	SE 3	U	U	U
Code 511, No. 161	Cerro Wire & Cable Co.	142	98/ 6.2	18 AMG	60-70	133-148		8-11	0.2	SE 3	U	U	U
Firesone 101, MS 27125 Code 511, No. 181	Cerro Wire & Cable Co.	142	98/ 6.2	22 AMG	25	32-33	14-16	0.1		SE 5	U	U	U
General Cable Corp. (Deep Blue)	General Cable Corp.	26	98/ 6.2	22 AMG	25-25	33-36	8-12		SE 6	U	U		
General Cable Corp. (Light Blue)	General Cable Corp.	36	98/ 6.0	16 AMG	25-25	28-35	5-15	0.5-0.6	Silicone	U	U		
General Cable Corp. (No. 22 AWG w/5 Mil Teflon)	General Cable Corp.	37	98/ 6.2										
General Cable	General Cable Corp.	146	98/ 6.2	14 AMG	140-160	39-47	104-112	4-2-4.5	BC	U	U	U	U
Ravag 019-PC-616	Ravag Industries, MDC	174	70/ 6.2	20 AMG	40-40	78	80	0.75	BC	U	U	U	U
Ravag Super Temp 7669679-10	Ravag Industries, MDC	5	96.7/ 6.2	16 AMG	100-100	475-485	25-25	3-6	SE 8"	U	U		
Ravag Super Temp 7669679-1n	Ravag Industries, MDC	6	96.97/ 6.2	16 AMG	65-22	26-75	15-30	0.2-0.3	SE 10"	U	U		
Ravag Super Temp	Ravag Industries, MDC	7	96.3/ 6.2	16 AMG	75-165	12-185	2-3-5	0.3	SE 10"	U	U		

TABLE II. FLAMMABILITY OF WIRE HARNESES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION ASSEMBLED, ETC.	MANUFACTURER OR SOURCE TEST NO.	COMPOSITION AND/OR REMARKS	IGNITION CONDITIONS			COMBUSTION PRESSURE, PSIA	RESULTS	TYPE I GROUP I
			SAMPLE WEIGHT, GRAMS	OVERLOAD IGNITION CURRENT AMPS	IGNITION TIME (SEC.)			
Harness No. 8, w/1221 Cover (R.L. Darlings)	Raybestos Manhattan Co.	98	100/ 6.2	20 ARC	4.0	*	2.4	BC
Harness No. 8, w/10 Conductor FEP Polyimide Wire w/L3217-1 Cover	Raybestos Manhattan Co.	94	100/ 6.2	20 ARC	60-65	42-68	32	SE4
Harness No. 8, w/10 Conductor FEP Polyimide Wire w/L3217-1 Cover	Raybestos Manhattan Co.	93	100/ 6.2	20 ARC	60-60	4.2	32	SE
Harness No. 10 Zipperthim	Zipperthim Company	95	100/ 6.2	20 ARC	40-40	*	0.4	SE
Harness No. 11, w/RL-3557 Tubing	R.L. Darling Co.	97	100/ 6.2	20 ARC	4.0	*	0.4	BC
Harness No. 16, Wire w/40 M39513/2 Convolute ed TPE and TPE Fiber Glass		101	100/ 6.2	20 ARC	4.0	*	0.3	NI
Harness No. 18, Steelless Steel Tubing AS316-NW	Servistar Company	96	100/ 6.2	20 ARC	4.0	*	0.3	NI
Harness No. 19, 10 Conductor Cable Varilox Sleevng (Black) Type NP Over 40RJ9573/2 PEP ML	Varflex Corp.	91A	100/ 6.2	20 ARC	60	40	*	NI
Harness No. 20, 51 Conductor Covered Varilox Teflon Covered w/Polyamide	Varflex Corp.	92	100/ 6.2	20 ARC	60	40-49	*	NI
Harness No. 21, Polyimide Covered Top w/Varilox Non Fray Sleevng	Varflex Corp.	100	100/ 6.2	20 ARC	40-50	*	0.3	NI

TABLE II. FLAMMABILITY OF WIRE HARNESES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND ORIGIN REMARKS	% COX / FSIA	SAMPLE WEIGHT, GRAMS	IGNITOR	IGNITION CONDITIONS			COMBUSTION PRESSURE, PSIA	RESULTS	TYPE I	MATERIALS RATING	GROUP I
							OVERLOAD IGNITION CURRENT AMPS	IGNITION TIME (SEC)	BURN TIME (SEC)					
Harness No. 22, Polyamide-Covered w/Bentley-Harris ML-U3 Fiberglas Braid, 10 Conductor	Astronautics Lab.	99		100/ 6.2	20 ANG	40				0.3	NI	BT	BT	
Harness No. 23, Wire 40RJ511/2 PEP ML-TPE Fiberglas	Astronautics Lab.	102		100/ 6.2	20 ANG	40				0.3	BC	U	U	
Harness No. 23, 26"	Astronautics Lab.	1763		Silicone						SE 1½"	U	U		
Harness No. 26, 40RJ511/2 Level w/ STPE-30-B Lacing Tape	Astronautics Lab.	1116		100/ 6.2	20 ANG	40				NI	BT	BT	BT	
Harness No. 26, MTL-N-22759, MS 21986)	Astronautics Lab.	103		100/ 6.2	40-45					SE 0.2	SE	U	U	
Harness No. 25, MTL-N-22759, MS 18001-12 Teflon Insulated, 7 Wires	Astronautics Lab.	104		100/ 6.2	12 ANG	205-205	40	4"	0.3	SE 4"	U	U		
Harness No. 26, 40M3913/2 Type 30DDB Nomex Lacing Tape	Bentley-Harris Co.	105		100/ 6.2	20 ANG	40-45	95	(98)	0.5	BC	U	U		
Harness No. 26, MTL-N-22759, MS 21986, Laced w/STPE-30-B Lacing Tape	Astronautics Lab.	1137		100/ 6.2	20 ANG	40	115		0.3	SE 3"	U	U		
Harness No. 27 w/PV8K12B10SMS 051-0684-000	Astronautics Lab.	1119		100/ 6.2	20 ANG	40-45	105	SE	0.4	SE 4"	U	U		
Harness No. 28 w/PV8K12B2NC 051-0684-000	Astronautics Lab.	1120		100/ 6.2	20 ANG	40-65	315	7.2	1.5	SE 6"	U	U		
Harness No. 29, w/Tape ST Rate Class	Bentley-Harris Co.	1121		100/ 6.2	20 ANG	40			NI	0.4-0.5	NI	S	S	

TABLE II. FLAMMABILITY OF WIRE HARNESSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MANUFACTURER, SOURCE, ASSEMBLIES, ETC.	TEST NO.	COMPOSITION % CNE/ PVA AND/OR RESIN	SAMPLE WEIGHT, GRAINS	I IGNITION CONDITIONS			RESULTS	WATER BATH TESTS	
				OVERHEAD IGNITION CURRENT AMPS	IGNITION TIME (sec)	BURN TIME (sec)		TYPE I CONE 1	TYPE I CONE 2
Harness No. 30, w/Class Slewing	122		100/ 6.2	20 AMG	40	WT	WT	S	S
Harness No. 31, w/I Core 532 TRC Tubing, Type H Verglas	106		100/ 6.2	20 AMG	40	WT	WT	S	S
Harness No. 32, w/PE Slewing, Type H Verglas CPT 16	106		100/ 6.2	20 AMG	40	WT	WT	S	S
Harness No. 33, w/5333 TRC Tubing, Type RD Verglas CPT 16	109		100/ 6.2	20 AMG	40	WT	WT	WT	WT
Harness No. 34, w/5333 TRC Tubing w/Steel- less Braids	107		100/ 6.2	20 AMG	60	WT	WT	WT	WT
Harness No. 35, w/5333 TRC Tubing w/Steel- less Braids	110		100/ 6.2	20 AMG	40	WT	WT	WT	WT
Harness No. 36, 1 Core 5330-20-001-10 Beck Shell Wire 4003513/2 PE Polyamide, 10 Wire Encased in TRC Coated Fiber Braid Inside 1 Core Teflon Coated Tubing	116		100/ 6.2	20 AMG	10-40	WT	WT	S	S
Harness No. 37, w/PE Spiral Wrap 3/16"	123		100/ 6.2	20 AMG	55	190	20	0.4	SE 6"
Harness No. 40, Con- ductor Kai in Shielded Wire, Raychem Solder Sleeve	149		98/ 6.2	22 AMG	40-55	192-198	WT	WT	WT
Harness No. 42, MIL-44- 2335 w/Neon Glass Fiber	127		98/ 6.2	40-45	65-90	7-11	0.5-1.2	SE 6"	WT

TABLE II. FLAMMABILITY OF WIRE HARNESSSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE, TEST NO.	COMPOSITION AND/OR REMARKS	% COX/ PSIA	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS			MATERIALS RATING		
					OVERLOAD IGNITION CURRENT AMPS	IGNITION TIME (SEC)	BURN TIME (SEC)	COMBUSTION PRESSURE, PSIA	RESULTS	TYPE I GROUP I
Harness No. 43, 4(M)9, 5/2 in Aluminum Braided	Aertronic Lab.	128	98/ 6.2	20 AWG	40-50	127	410	0.5-1.0	BC	U
Harness No. 44, 9 Shielded Raychem Corp. ed Wire, 10M39526/2	Bentley-Harris Co.	150	98/ 6.2	22 AWG	40-55	86-89		0.3-0.4	BC	U
Harness No. 45, Fluorel RL-3846, Tubing	Bentley-Harris Co.	132	98/ 6.2	20 AWG	40-40			0.6-0.8	SE 4"	U
Harness No. 46, Viton Type 44	Bentley-Harris Co.	133	98/ 6.2	20 AWG	40			0.3-0.5	SE 3"	U
Harness No. 47, Type 151 Silicone Rubber	Bentley-Harris Co.	136	98/ 6.2	20 AWG	40	55		0.5-3.9	BC	U
Harness No. 48	Suflex Corporation	152	98/ 6.2	10 AWG	40-50		SE	0.3	SE 3"	U
Harness No. 49	Aertronic Lab.	151	98/ 6.2	20 AWG	40-50			0.05	BC	U
Harness No. 50	Aertronic Lab.	177	100/ 6.0	20 AWG	40-50				N1	BT
Harness No. 51, G6168, 3-8 M6R12B10NS	Aertronic Lab.	171	98/ 6.2	20 AWG	40	145	17		SE 6"	BT
Harness No. 52, MIL-W- 16878, Type E w/Ref- lon Jacket	Aertronic Lab.	178	100/ 6.2	20 AWG	40-50	123			BC	U
Harness No. 53, Beta Glass Woven in Ribbon Jacket on Wires	Aertronic Lab.	179	100/ 6.2	20 AWG	40				BC	U
Harness No. 53, Beta Glass Woven in Ribbon Jacket on Wires	Aertronic Lab.	179	70/ 6.2	20 AWG	40				BC	U
Harness No. 54, Beta Glass Woven in and Around Jacket on Wires	Aertronic Lab.	180	100/ 6.2	20 AWG	40				BC	U
Harness No. 54, Beta Glass Woven in and Around Jacket on Wires	Aertronic Lab.	180	70/ 6.2	20 AWG	40				BC	U

TABLE II. FLAMMABILITY OF WIRE HARNESSSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	IGNITION CONDITIONS				COMBUSTION PRESSURE, PSIA	RESULTS	MATERIAL RATING
				% GOM/ PSIA	SAMPLE WEIGHT, GRAMS	OVERTIME CURRENT AMPS	OVERLOAD IGNITION IGNITION TIME (SEC.)			
Harness No. 56, Flat Cable 2-1/16" Wide	Astrionic Lab.	156		98/ 6.2		27 AWG	10-20	86-123	10-61	SE U U
Harness No. 56, Flat Cable 2-1/16" Wide	Astrionic Lab.	156		70/ 6.2		27 AWG	10-15	90	15-20	SE 3 U U
Harness No. 57, Silicone R. ITT Jacketed	Astrionic Lab	163		98/ 6.2		20 AWG	10-40	58	284	BC U U
Harness No. 58, w/Teflon Coated Glass Part No. E779-103	Dodge Fibre Corp.	164		98/ 6.2		22 AWG	25-45	250-253	22-24	BC U U
Harness No. 59, w/Guided- broad Dacron Lacing Tape	Raven Pyrad Wire Co.	165		98/ 6.2		22 AWG	25-40	200	35	BC U U
Harness No. 60, Flame Core Towing Wholes 1/16" Drilled In	MDAC-ED	166		98/ 6.2		22 AWG	25	NI		BT S
Harness No. 61, Flat Cable (Traction at Potted End)	Astrionic Lab	170		70/ 6.2		20 AWG	15		NI	BT BT
Harness No. 62, Bentley Harris Type 66 LM Black Fluorel (12231 or 13217-1)	Astrionic Lab.	181		100/ 6.2		20 AWG	40-55	20-210	275-330	BC U U
Harness No. 63, Bentley (Connecte PT06C- 22-35P)	Astrionic Lab	197		100/ 6.2		20 AWG	40-55	275	937	BC U U
Harness No. 64	Astrionic Lab	208		100/ 6.2		20 AWG	40	NI		BT BT
Harness No. 65	Astrionic Lab	210		100/ 6.2		20 AWG	40-45	90	42	BC U U
Harness No. 66	Astrionic Lab	211		100/ 6.2		20 AWG	40-45	90	11	BC U U
Harness No. 67	Astrionic Lab	212		100/ 6.2		20 AWG	40-50			BC U U

TABLE II. FLAMMABILITY OF WIRE HARNESES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	% GOV/ PSIA	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS			COMBUSTION PRESSURE, PSIA	RESULTS	TYPE I	GROUP I
						OVERTOTAL IGNITION CURRENT AMPS	IGNITION TIME SEC.	BURN TIME (SEC.)				
Harness No. 68, Vinyl Tape	Astronics Lab	213		100/ 6.2	100/ 6.2	40-50	185	15	BC	U	U	
Harness No. 69	Astronics Lab	209		100/ 6.2	20 AWG	40	8.3	15	BC	U	U	
Harness No. 70, Vinyl	Astronics Lab	214		100/ 6.2	20 AWG	40-45	95	24	BC	U	U	
Harness No. 73, Vinyl	Astronics Lab	226		100/ 6.2	20 AWG	6-10	6-10	6-10	BC	U	V	
Harness No. 75, Connector (Glass Filled Epoxy)	Astronics Lab	225		100/ 6.2	26 AWG	N1	N1	N1	NI	BT	BT	
Harness No. 76, Fluorel Coated	Astronics Lab	219		100/ 6.2	27 AWG	N1	N1	N1	BC	U	U	
Harness No. 77	Astronics Lab	222		100/ 6.2	20 AWG	40-45	85-100	10-21	SE 6"	U	U	
Harness Container Unit STA	Bendix	103		100/ 6.2	20 AWG	40-45	85	N1	0.3	NI	BT	BT
Harness (Bendix) Bentley		161		98/ 6.2	20 AWG	40	N1	N1	NI	BT	BT	
Harris Fibries 931- CJ Polyamide Coated (Outer)												
Harness, NBO Convoluted Tubing, 7 Conductors, Thin Wall (30 Mil min.)	Raychem Corp.	226		100/ 6.2	16 AWG	N1	N1	N1	NI	BT	BT	
Harness, NBB Convoluted Tubing, 7 Conductors, Thick Wall (40 Mil min.)	Raychem Corp.	227		100/ 6.2	16 AWG	N1	N1	N1	NI	BT	BT	
Harness, NSC Convoluted Tubing, 7 Conductors, Thin Wall (30 Mil min.)	Raychem Corp.	229		100/ 6.2	Silicone 10 amp	35	140	SE 14"	U	BT		

TABLE II. FLAMMABILITY OF WIRE HARNESSSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	1. COX/ PSIA	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS			MATERIAL RATING	
						OVERLOAD IGNITION CURRENT AMPS	IGNITION TIME (SEC)	BURN TIME (SEC)	COMBUSTION PRESSURE, PSIA	RESULTS
Harness, NBC Convoluted Tubing, 7 Conductors, Thick Wall (40 MIL Min.)	Raychem Corp.	230	100/ 6.2	Silicone 10 amps	35	146			SZ	U
Harness, NBC Convoluted Tubing, Thick Wall (40 MIL min.)	Raychem Corp.	231	100/ 6.2	Silicone 10 amps	45	87			SZ	U
H-Zone RSS-125 MS-27125-16	Cerro Wire and Cable Co.	143	98/ 6.2	18 ANC	100-100				SZ	U
H-Zone RSS-125 MA-24125, Code 532, No. 161	Cerro Wire and Cable Co.	144	98/ 6.2	18 ANC	60-65	95-105	SE 12-19		SZ	U
Intertone X/B RSS-129-16	Cerro Wire and Cable Co.	169	98/ 6.2	16 ANC	140-140	48-62			SZ	U
Intertone X/B RSS-129-14	Cerro Wire and Cable Co.	169	70/ 4.2	16 ANC	140-140	50			SZ	U
Intertone X/B RSS-129-16	Cerro Wire and Cable Co.	168	98/ 6.2	16 ANC	100-80	25-85	SE 9"		SZ	U
Intertone X/B RSS-129-16	Cerro Wire and Cable Co.	168	70/ 4.2	16 ANC	100-100	23-28	21I		SE 7	U
International Telephone and Telegraph (ITT) Type (Wire) 1950 MC (Purple)		18	98/ 6.2	16 ANC	60-60	42-52	15-23	0.3	SE	U
ITT Type (Wire) 1173 (Gray)	HDAC-MD	19	98/ 6.2	18 ANC	60-60	53-92	28-30	0.2-0.3	SZ	U
ITT Type (Wire) 1173 (Gray)	HDAC-MD	33	70/ 6.0	18 ANC	65-65	66-74	NI	0.2	SE 10"	U
ITT Type WIRE 1930NC (Purple)	HDAC-MD	35	70/ 6.0	18 ANC	60-65	61-74	NI	13-15	SE 11"	U
ITT Type 1173 (Gray)	HDAC-MD	38A	98/ 6.2	16 ANC	60-60	55-105	20-23	0.2	SE	U

TABLE II. FLAMMABILITY OF WIRE HARNESSSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE TEST NO.	COMPOSITION AND/OR REMARKS	SAMPLE WEIGHT, GRAMS	Z. COV/ PSIA	IGNITION CONDITIONS				MATERIALS MATRIX		
					OVERLOAD IGNITION CURRENT AMPS	IGNITION TIME (SEC.)	BURN TIME (SEC.)	CORNUSTION PRESSURE, PSIA	RESULTS	TYPE I	GROUP I
ITT TYPE 1173 (Gray) (Current Carrying One #14 Other Wires)	39A		98/ 6.2	19 ANC	60-60	32-34	11-13	0.3-0.5	SE	U	U
ITT CG8420TNA	60	ITT Surpreant	70/ 6.0	20 ANC	40-50	135-140	7-20		SE	U	U
ITT Surpreant CG812W	59	ITT Surpreant	70/ 6.2	20 ANC	40-45	85-121	130-14		SE	U	U
ITT Surpreant CG820W	62	ITT Surpreant	100/ 6.2	20 ANC	40-45	72-92	28		SE 10"	U	U
ITT Surpreant CG812N	63	ITT Surpreant	100/ 6.2	101A	205-205	20-30	38	0.2	SE 4"	U	U
ITT Teflon Insulated Wire, MIL-C-27500 16726	4	ITT Surpreant	95/ 6.2	16 ANC	103-115	12-30	93-105	1.1-0.3	SE 6"	U	U
Jacket, Braided, Teflon 7 Conductor, Coated Glass Wire	85	3M Company	98/ 6.2	20 ANC	40-45	195	18	0.1	SE 5"	U	U
Jacket, Fluorel Tubing, 7 Conductor 13217-1	86	R.L. Darling Co.	98/ 6.2	20 ANC	40-55	215	432	1.2	SE 6"	U	U
Kapton PFP (Polyimide) Ribbon Cable	138		98/ 6.2	27 ANC	20-20	5-5		SE (2-1)		U	U
Kapton PFP (Polyimide) Ribbon Cable	138		98/ 6.2	27 ANC	10-10	20-25		SE 15"	0.4-0.5	10-10	U
Kel-P 62 Wire	40A	3M Company	96/ 6.2	22 ANC	25-25		SE			I	I
Kynar Solder Splices	135		98/ 6.2	40-50	40-130	25-43			BC	U	U
Mica Temp PSS3-30A		Cerro Wire and Cable Co.	98/ 6.2	16 ANC	90-100	29-133			MI	BT	BT
Mica Temp PSS3-30A		Cerro Wire and Cable Co.	98/ 6.2	16 ANC	100-100	16-17	50		SE 5"	BT	BT

TABLE II. FLAMMABILITY OF WIRE HARNESES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	% GDX/ PSIA	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS			COMBUSTION PRESSURE, PSIA	RESULTS	MATERIAL RATING	
						OVERLOAD CURRENT AMPS	IGNITION TIME (SEC.)	BURN TIME (SEC.)			TYPE I	
MIL-W Coax Lenth Linked Polyalkene		46		98/	6.2	20 ANC	40-45	38-68	25-45	2.6-2.8	SZ U U	
MIL-W-01064 PVC Insulated Wire		61		70/	6.2	20 ANC	40-45	69-70	29-43	SZ U U		
MIL-W-16376, Tyre E- 18	ITT Surprent	70		98/	6.2	20 ANC	40-50	80-130	N1	0.3	SZ U U	
MIL-W-16378D, Tyre B- 18		89		98/	6.2	18 ANC	120-120	6	38	0	BC U U	
MIL-W-768 (Light Green)	Belden	90		98/	6.2	18 ANC	120-120	7	62	0.5	BC U U	
MS-18001-20, MIL-4- 22759 Kynar Cable Ties		71		98/	6.2	60-60		35-40	11-98	0.3-0.6	BC U U	
Non-Burning Caulk Compound RK-3550	Raybestos-Manhattan	111		98/	6.2	20 ANC	40-50	N1		WT BT		
Polyisobutylene Over Teflon TPE	Havco Industries	81		98/	6.2	20 ANC	40-50	100-130	S-8	0.2	SZ U U	
Polyisobutylene Over Teflon TPE	Havco Industries	82		98/	6.2	12 ANC	205-205	40-42	8-12	0.3	SZ 1" U U	
Polyisobutylene Coated Wire, MIL-W-81381/2	Brand Rex	83		98/	6.2	20 ANC	40-50	130-135	12-19	0.3	SZ 3" U U	
Polyisobutylene MIL-W-81381/2	Brand Rex	84		98/	6.2	12 ANC	205-205	30-32	6-19	0.3	SZ 4" U U	
Polyisobutylene (Undesig- nated) ITT Wire Cable	ITT Surprent	63A		98/	6.2	25-30		81-85	N1	0.2	SZ 3" 1	
RTV 3116 (Potted Bulkhead Connector) Bece Bagged		160		98/	6.2	22 ANC	25-25	20-40	25	SZ U U	BT	
RTV Potted Light Connector		162		98/	6.2			25	90	27	BC U U	
RTV 681 Tel-P Covered	Dow Corning	58		98/	6.2	22 ANC	60-60	53		0.4	SZ U U	

TABLE II. FLAMMABILITY OF WIRE HARNESSSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	% COV/ PSIA	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS			MATERIALS RATING		
						OVERLOAD IGNITION CURRENT AMPS.	IGNITION TIME (SEC.)	BURN TIME (SEC.)	COMBUSTION PRESSURE, PSIA	RESULTS	TYPE I GROUP I
Scotch Cast XB5016	3M Company	3		95/ 6.2		50-60	35-90	6-12 min.	2.2-2.3	BC	U U
Scotch Cast XB5018 Control w/R-15'10"	3M Company	14		98/ 6.2		40-65	45	6-12 min.	BC	U U	
Scotch Cast XB5016 Coated w/R-3550	3M Company	23		68/ 6.2		55-60	80	142	0.3	SE	U
Scotch Cast XB5018 Simulated Electrical Control Aluminum Box MDC	3M Company	1192		100/ 6.2	Overload			NI		SE	S S
Stycast 2651-E-C, In Common 6525 Connect- tor	Emerson & Company	1		95/ 6.2		50-55	40-75	6-11 min.	2.3-2.5	BC	U U
Stycast 2651-E-C Coated w/R-3550	Emerson & Company	15		98/ 6.2		40-50	42-153	153	0.3	BC	U U
Stycast 2651 w/Kel-F Protection	Emerson & Company	17		98/ 6.2		55-55	24-49	12-23		NI	U U
Stycast Potting Compound 2762	Emerson & Company	131		98/ 6.2		100-100	15	360		BC	U U
Techbrite AVA-T-1	Anstek Brothers, Inc.	146		98/ 6.2		14 A/C	140-143	75-82	60-65	BC	U U
Teflon Hose, 1-1/4" OD, 6' long, Fentube		1564	Five Convo- lutions per inch	98/ 6.2	Silicone			NI		SE	ST
Teflon Insulated Wire	Standard Wires and Cables Co.	139		98/ 6.2		18 A/C	60-65	55-62	(9-19)	SE 61	U
Teflon Insulated Wire Type E	Standard Wires and Cables Co.	160		98/ 6.2		18 A/C	60-60	48-51	(6-10)	SE 6	U
Teflon Wire w/Refrazel E Glass Braided over Doublet (Please braid)		175		70/ 6.2		20 A/C	40			NI	ST

TABLE II. FLAMMABILITY OF WIRE HARNESSES, CONNECTORS, AND POTTING COMPOUNDS (Continued)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	% COX/ PSIA	SAMPLE WEIGHT, GRAMS	OVERHEAD IGNITION			IGNITION CONDITIONS			MATERIALS RATING	
						IGNITION CURRENT AMPS.	IGNITION TIME (SEC.)	BURN TIME (SEC.)	IGNITION PRESSURE PSIA	RESULTS	TYPE I	GROUP I	
Temporell 1501	Daylen Company	66		98/	6.2	16 AMG	60-60	63-53	1.2-1.9	SE	U	U	
Temporell 741	Daylen Company	67		98/	6.2	16 AMG	60-60	42-47	(29-308)	1.0-1.1	BC	U	
Temporell 1500	Daylen Company	68		98/	6.2	16 AMG	60-60	N1		N1	BT	BT	
Temporell 1501 Styrene Oven Cured 1 Hour at 100°C	Daylen Company	69		98/	6.2	60-60	60-69	(180-223)	0.7	BC	U	U	
Temporell 740	Daylen Company	72		98/	6.2	60-60	67-48	(292-300)	1.7-2.1	BC	U	U	
Temporell 1501 Viton C328 Adhesive - 25% of 1501, 15% of C328	Daylen Company	73		98/	6.2	60-60	36-42	42	1-1.3	SE	U	U	
Temporell MS 18001-16	Daylen Company	20		98/	6.2	16 AMG	100-100	32-36	19-21	0.2-0.3	SE	U	
Temporell MS 18001-16 Coated w/RL-3550	Daylen Company	21		98/	6.2	16 AMG	100-100	16-21	(15-20)	0.1	SE	U	
Temporell MS 18001-DO	Daylen Company	22		98/	6.2	20 AMG	45-50	80-110	(10-12)	0.1-0.2	SE	U	
Temporell P08221685 Spec. 1925x12	Daylen Company	145		98/	6.2	-205	27-30	(12-17)		SE	U	U	
TPE Wire (Green)	Electronic & Electrical Wire, Cable and Cordage Company	87		98/	6.2	18 AMG	120-120	4	(5)	SE	U	U	
Thermofit NBC Recycled	1941	Fluoro- elastomer	70/	9-35	8	101A	36W	7	N1	BT	BT	BT	
Thermofit NBC Recycled	1942	Fluoro- elastomer	70/	9-35	8	Silicone	36W	18	N1	BT	BT	BT	
Thermofit NBC Post Cured	1943	Fluoro- elastomer	70/	101A	6.2				N1	BT	BT	BT	

TABLE II. FLAMMABILITY OF WIRE HARNESSES, CONNECTORS, AND POTTING COMPOUNDS (Concluded)

MATERIAL, DESCRIPTION, ASSEMBLAGE, ETC.	MANUFACTURER OR SOURCE	TEST NO.	COMPOSITION AND/OR REMARKS	7 GOX/ PSIA	SAMPLE WEIGHT, GRAMS	IGNITION CONDITIONS			COMBUSTION PRESSURE, PSIA	RESULTS	TYPE I	MATERIALS LISTED GROUP I
						OVERHEAD IGNITION CURRENT AMPS	IGNITOR CURRENT AMPS	BURN TIME (SEC.)				
Thermit NBC Post Cured	Recycled	1946	Fluorosilicone elastomer	70/6	Silicone	73-427	0.5-0.9	SE 6	U	U	U	U
Thermit NBC Tubing	Recycled	1932	Heat Shrinkable Tubing	100/6.2	Silicone	255		SE 8	U	U	U	U
Thermit NBC Harness No. A, 20 AWG TFE Type E 16 mil to 16876	Raychem Corp.	199		100/6.2	20 AWG	40-40			NI	S	S	S
Thermit NBC Harness No. A, 20 AWG TFE Type E 16 mil to 16876	Raychem Corp.	200		100/6.2	20 AWG	40-40			NI	WT	WT	WT
Variable Covering over Teflon Insulated Wire		172		98/6.2	12 AWG	205-205			NI	WT	WT	WT
NBC Harness C, 12" Bundle of 7 Conductors	Raychem Corp.	201		100/6.2	100-100				NI	WT	WT	WT
NBC Harness D, 12" Bundle of 7 Conductors	Raychem Corp.	202		100/6.2	100-100				NI	WT	WT	WT
Wire Bundle 1064, 10 Gauge, MDAC		135		100/6.2	Overload 250- 275A		(10)		BC	U	U	U
Wire CATION-PER Bundle	ITT	79		98/6.2	40-55	2 1/2-3 1/4 (75-131)	0.4-0.8	SE 6"	U	U	U	U
Wire Cable Bundle C920-Teflon PER- Polyimide Coated		80		98/6.2	40-55	165-169	9-10	SE 6"	U	U	U	U
Wire, Overload Test MAC		134		100/6.2	Overload 250A		(10)		BC	U	U	U

TABLE III. CONFIGURATION TESTS

Item Description	Source/Test Request No.	Test Equipment	Test/Letter No.	Results	Rating
All Research Wire Bundle Part No. 61R8100 10-51, Modified by MDAC-ED Outer Covering of Stranded Braided Beta Fabric XA346B, F0176 Connector & Potting Compound Covered with Beta Boot	MDAC-ED SFNTR-184A & 184	100% O ₂ @ 6.2 psia	133(AM 71-86)	None Config. Res. of MBPC Spec 101B	6
All Research Wire Bundle, Part No. 61R8100 10-51 Modified by AllResearch - with Double Layer Braided Bag (4484)	MDAC-ED SFNTR-185 & 186 A MRVC:	100% O ₂ @ 6.2 psia	134(AM 71-86)		
Acoustic Multifiler (Articulation in Aluminum Container, Pelt Metal Cover)	MDAC-ED SFNTR-126	100% O ₂ @ 6.2 psia	2019		
Cabin Pressure Relief Valve	MDAC-ED-BPNTR 316	100% O ₂ @ 6.2 psia	200		
Circuit Breaker Panel 1878091-120	MDAC-WD-MD-9		82		
Circuit Board Electronics Module	MDAC-WD-MT-16		129		
Connac ATM-TV-Monitor (NA88-1846)	Connac CC		38		
Console Power 1 D 75091-121	MDAC-WD		83		
Console Power DP 119	MDAC-WD MD-8		153		
Console Power DP 142	MDAC-WD MDA-8		166		
Dust Assembly 1877017-909	MDAC-WD-MT27	7% O ₂	234		
Experiment T003 Aerolot Analyzer	Dept. of Transportation	10% O ₂ - 6.2 psia	106		
Experiment 8600 Nuclear Emulsion Package	NAVAL Research Lab	100% O ₂ @ 6.2 psia	2063		
Experiment T002 Biowage Container	Ames Research Ob.		240		
Experiment M612 Control Panel	MBFC		166		
Experiment #226 (1M1, Al. Foil'Covered Lenses)	MBPC	100% O ₂ @ 6.2 psia	224		
Experiment 56 Film Magazine	MBPC	100% O ₂ @ 6.2 psia	184		

TABLE III. CONFIGURATION TESTS (Continued)

Item Description	Source/Test Request No.	Test Equipment	Test Letter No.	Results	Rating
Experiment H-Alpha Film Magazine	MSFC	100% O ₂ @ 6.2 psia	133	Meets Config. Test Req. of MSFC Spec. 101B	S
Electrical Control Panel (Airlock)	MDAC-C-FD-SPNTR 79		138 (AM 71-06)	Did not Meet Config. Req. of MSFC Spec 101B	U
Electrical Junction Box (Airlock)	MDAC-C-ED T-19		213	Meets Config. Req. of MSFC Spec 101B	S
Protoneter Electronic Array, 5MM17012	MSFC		131		
Electrical Wire Harness, NTG Covered	MDAC-C-WH-10		200		S
Electrical Wire Harness FTS 41-DMA MMC	MDAC-C-FD SPNTR 76	100% O ₂ @ 6.2 psia	AM 71-06		S
Electrical Wire Harness Repair	MMC/MMC-089/090		137		S
Electrical Wire Harness (MOT, SIEVE)	MDAC-C-ED T-17		301		S
Electrical Wire Harness, NTC - Non Vent Ultron	MDAC-C-ED SPNTR 177		AM 71-06	Did Not Meet Config. Req. of MSFC Spec. 101B	U
Electrical Wire Harness, NTC Covered-Vent Ultron	MDAC-C-FD SPNTR 215		275 (AM 71-06)	Meets Config. Req. of MSFC Spec. 101B	S
Electrical Wire Harness (Standard)	MMC/MMC 040, 095		271		S
Electrical Wire Harness (Raceway Breakout)	MMC/MMC 4		197		S
Electrical Harness with Pressure-sensitive Teflon Tape	MMC/MMC 075		199		S
Electrical Harness, Beta Glass, Kapton Tape Covered with NTC	MMC MDA 092, 076		304	Did Not Meet Config. Req. of MSFC Spec. 101B	S
Electrical Harness, Pressure-sensitive Teflon Tape Covered with NTC	MMC/MMC 091		303	Meets Config. Req. of MSFC Spec. 101B	S
Electrical Toggle Switch-potted and Fluorel Coated	7R, 123 102	MDAC-C-FD SPNTR 134	241 240(AM 70-29)	Did Not Meet Config. Req. of MSFC Spec. 101B	U
Electrical Toggle Switch-potted, Potted Plus Beta Bag 52-797-0541	MDAC-C-FD SPNTR 155		1934	Meets Config. Req. of MSFC Spec. 101B	S
Electrical Connector, Potted, Single Beta Bag	MDAC-C-ED SPNTR 130		242 AM 70-29		S
Electrical Connectors, Potted, Fluorel Coated and Single Beta Bag	MDAC-C-FD SPNTR 131		238 AM 70-29		S

TABLE III. CONFIGURATION TESTS (Continued)

Item Description	Source/Test Request No.	Test Equipment	Test/Letter No.	Results	Rating
Electrical Connector, Potted, Fluorel Coated Plus Two Beta Bag	MIDAC-ED SPNTR 132	100% O ₂ @ 6.2 psia	AM-70-29 244	Meets Config. Req. of MSFC Spec 101B	S
Electrical Connectors, Potted, Double Beta Bag	MIDAC-ED SPNTR 133		245 AM 70-29 AM 71-06 261C	Meets Config. Req. of MSFC Spec 101B Did Not Meet Config. Req. of MSFC Spec. 101B	S
Electrical Connector, Potted, Single Beta Bag	MIDAC-ED SPNTR 201, 130			Did Not Meet Config. Req. of MSFC Spec. 101B	S
Electrical Connectors, Potted, Two Beta Bag	MIDAC-ED SPNTR 216		277 AM 71-06	Meets Config. Req. of MSFC Spec 101B	S
NTC Coated Vaseline Electrical Harness	MMC/MDA 041		273		S
Electrical Connector, Potted (New 1643) Double Wall Beta Bag	MIDAC-ED SPNTR 217		278 AM 71-06	Did Not Meet Config. Req. of MSFC Spec 101B	S
Electrical Module Potted Relay Assembly	MIDAC-WD-MD 60		230	Meets Config. Req. of MSFC Spec 101B	S
Electrical Junction Box with MRG Coated Wire Bundles	MIDAC-ED-SPNTR 176		212		S
Fluorel Coated Beta Steering	MMC/MDA 044		219		S
Freezer Dent Assembly, OWS IT 42767-1	MIDAC-WD-MD 62		229		S
Foam Insulation (35) 1 inch Thick, 5 mil Aluminum Foil Covered Over Frame and Nut Plate	MIDAC-WD	100% O ₂ @ 6.2	77 & 78		S
Flight Data File Storage Container (Filled)	MMC/MDA		227		S
Flex Thru (Silicone/offset) p/n 61A 830 195-6	MIDAC-ED-T5		1R7	Did Not Meet Config. Req. of MSFC Spec 101B	U
FM .34 cm 0.019 in. Thick Polyal	MMC/MDA 097	100% O ₂ @ 6.2	196	Meets Config. Req. of MSFC Spec 101B	S
Heat Exchanger	MIDAC-ED SPNTR 293		1R9		S
Heater Blanket Assembly	MIDAC-WD-MD-30		23R		S
Hone Assembly	MIDAC-WD-ND 65		235	Did Not Meet Config. Req. of MSFC Spec. 101B	U
Indicator Light 61P 810002	MIDACED-T2		2R4	Meets Config. Req. of MSFC Spec. 101B	S
Illumination Light Curtain	MMC/MDA-107	70/30 02/N ₂ @ 6.2 psia	2190		S
Metabolic Analyzer: Electronics Package	MSFC	100% O ₂ @ 6.2	176		S

TABLE III. CONFIGURATION TESTS (Continued)

Item Description	Source/Test Request No.	Test Environment	Test Letter No.	Results	Rating
Item ZXB	MDAC-HD	70/6, 0	191		
Item ZXA		70/6, 0	192		
Item RXA		70/6, 0	193		
Item SXA		70/6, 0	194		
Item SXA		70/6, 0	194		
Item IXA		70/6, 0	195		
Item IXB		70/6, 0	196		
Item SXB, ITT, TFE Type EE		70/6, 0	192		
Item RXA, Fiberglass Sheathing, ITT Type EE 16 AWG TFE		70/6, 0	193		
Item RXA, 20 AWG, TFE-EE		70/6, 0	194		
Item IXA		70/6, 0	195		
Item RXB		70/6, 0	196		
Item RXA		70/6, 0	197		
Item IXA		70/6, 0	198		
Item SXB		70/6, 0	199		
Item SXB		70/6, 0	199		
Item IXC		70/6, 0	199		

TABLE III. CONFIGURATION TESTS (Continued)

Item Description	Source/Test Request No.	Test Equipment	Test/Letter No.	Results	Rating
Motor Fecal Collector	MDAC-WD	100% O ₂ @ 6.2 psia	15R	Meets Config. Req. of MSFC Spec 101B	S
Motor, Digital Model OMA	RN9		244		S
Man-Sieve Mock up	MSFC		17R		S
Minor D. C.	Globe Industries		47A		S
Minor D. C., p/n 343A, 100-10	Globe Industries		1706		S
MDA External Insulation	MMC/MDA 056	Air-14.7 psia	MDA - 14-71		S
Radio Noise Burst Monitor	ASTR	100% O ₂ @ 6.2 psia	223		S
Refrigeration System Test Specimen Ser. 6-2573-12-00013	MDAC-WD		126		S
Refrigeration System Ser. 6-2573-12-0002	MDAC-WD		121		S
Refrigeration System Ser. 6-2573-12-0004	MDAC-WD		120		S
Refrigeration System Ser. 6-2573-12-0001	MDAC-WD		119		S
Refrigeration System Ser. 6-3573-31-0001	MDAC-WD		11R		S
Storage Locker & Contents (OVS)	MDAC-WD		22R		S
Silvestri 2450 GT Faying Surface Sealant	MMC/MDA 122	70% O ₂ /30% N ₂ , 6.2 psia	351		S
Speaker Intercom S/mas8	MDAC-FD T-2	100% O ₂ @ 6.2 psia	192		S
	MDAC-WD	70% O ₂ - 30% N ₂ , @ 6.2 psia	193		S
Test Panel, 3' Foam w/s Mt1 Aluminum Foil No. 513 Thubler			97	Meets Config. Req. of MSFC Spec. 101B	S
Test Panel, 3' w/Thubler 2 Ply 3M-425 Tape 507			94		S
Test Panel, 3' Foam w/one Ply 3M-425 Tape 505 Thubler			93		S
Test Panel, 3' Foam w/mix Ply 5 Mill Al Foil 503 Doubler			92		S
Test Panel, 3' Foam w/10 Mill Foil TT-1R271-501-NC Doubler			90		S
Torque Motor Armature Brush Ring	Engineering Physics Branch	100% O ₂ @ 6.2 psia	1698		S

TABLE III. CONFIGURATION TESTS (Concluded)

Item Description	Source/Test Request No.	Test Equipment	Test/Letter No.	Results	Rating
Tape - Y938R/621 Polyimide Composite	MDAC-ED 234 276	100% O ₂ @ 6.2 psi	2164	Meets Config. Req. of MSPEC Spec. 101B	S
Tape - Y938R/032 Aluminum Composite	MDAC-ED 230		195		S
Tape - Y938R/Montile/1082C/Alumium Composite	MDAC-ED 285 & 286		194		S
Teletypewriter Takeup Assy.	MDAC-ED		AM 71-06		S
Fluorel Coated Beta Fabric	NMC/MDA-047		128		S
TV Recorder Electronics Package	RCA		2185		S
Ward Room Curtain	MDAC WD-MD64		241		S
Water Bottle			114	Did not meet Config. Req. of MSPEC Spec. 101B	U
Wire Trough 1B7591-122			83	Meets Config. Req. of MSPEC Spec. 101B	S
Water Meter (OWI)	MDAC-WD-MD32		239	Meets Config. Req. of MSPEC Spec. 101B	S

APPROVAL

NASA TM X-64783

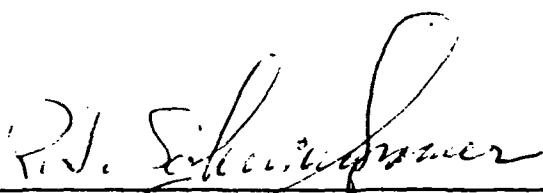
FLAMMABILITY OF MATERIALS IN GASEOUS OXYGEN ENVIRONMENTS

By

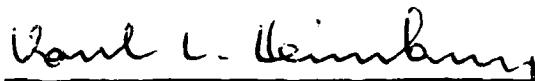
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This document has also been reviewed and approved for technical accuracy.



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